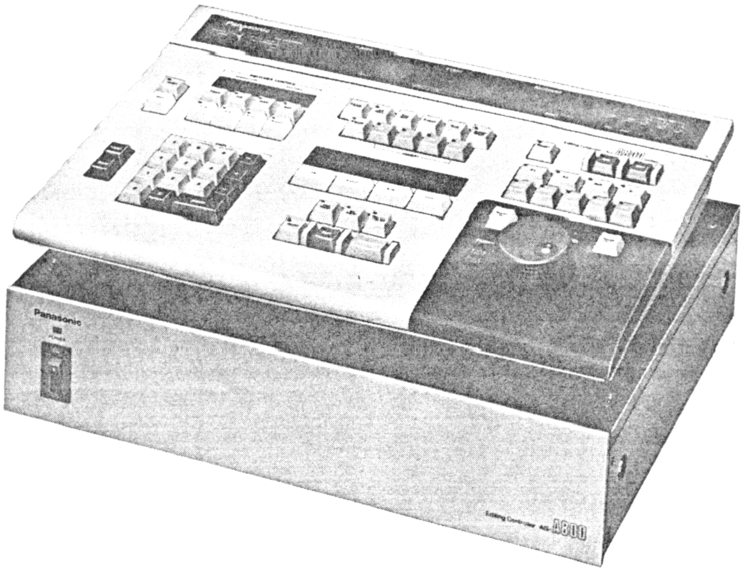
Editing Controller

AG-A800



SPECIFICATIONS

ITEM	SPECIFICATIONS
Power	Source: AC 220~240 V, 50~60 Hz Consumption: Approx. 36 W (When inserting the Interface Board)
Controls	Source: Unit/Editor-Unit: Record, Fast Forward, Play, Rewind, Stop, Search (SHUTTLE, JOG) EDIT READY
Editing Controls	Editing Modes: Assemble, Insert (Audio CH1, CH2/Video/Time Code) Audio Split, A/B Roll.
	Edit Point Trimming: Mark In/Out/Trim−/Trim+/~Key/Clear/10 Key/Edit Point (IN/A OUT/B IN/OUT) [source-unit/editor-unit]
	Editing Controls: Preview, Auto, Edit, Edit Stop, Review Go-To, TCG Set, EVENT, Duration Total.
Switcher Controls	Source-Unit: Auto/Transition/Dissolve/Wipe/Key Take/Position/Audio
Counter Display	Time/Lap Indication: Max. ±9 hr. 59 min. 59 sec. 24 fr. (When Control Signal) Max. ±23 hr. 59 min. 59 sec. 24 fr. (When Time Code)
Connectors	Remote Control: 25-pin Data IN/OUT Connectors
	Additional Source: 15-pin AUX CONTROL Connector (Relay Contact)
	Reference Video IN/OUT Connectors (BNC) Loop through with 75 ohms
	Switcher Control: 9-pin SW I/F Connector
	To Key Board Connector : 15-pin To I/F Unit Connector: 15-pin

ITEM	SPECIFICATIONS
Compatible VTR Units	AG-7500, AG-7510, AG-6500, AU-650B AU-640, AU-630, AU-620, NV-9600, NV-9240
Connection Capability (number of units)	Up to 2 Source Unit 1 Editor Unit
Automatic Editing Capability (number of Edits)	128 Individual data items
Preroll Time	3, 5, 7, 10, 15 sec (selectable)
Operating Temperature	41°F~104°F (5°C~40°C)
Operating Humidity	35%~80%
Dimensions	I/F Unit; 16 11/16″ (W)×3 13/16″ (H)×11 13/16″ (D) 424 (W)×96 (H)×300 (D) mm Control Panel; 16 11/16″ (W)×2 15/16″ (H)×10 13/16″ (D) 424 (W)×75 (H)×275 (D) mm
Weight (approx.)	Unit; 12.54 lbs. (5.7 kg) Control Panel; 4.84 lbs (2.2 kg)

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Outline

The Editing Controller AG-A800 makes it possible to configure mixed systems comprising not only the professional VTRs AG-7500/7510 but also the AU-650B for TV broadcasting applications.

This controller can control up to 3 VTRs.

If you use the optional switcher AG-SW800, the lines from the two VTRs on the source side and the external equipment can be switched by this controller and the audio/video signals can be transmitted to the VTR on the recorder side.

Insert, assemble, audio split and initial edits can be executed. The preroll time can be set for 3, 5, 7, 10 or 15 seconds. The data IN/OUT facility allows editing data communication with the personal computer using the RS-232C line.

Features

Operation with up to three VTRs

This unit is capable of operating with three VTRs: two Player VTRs (P VTRs) and a Recorder VTR (R VTR) using the optional Interface Board.

External Input

With the optional AG-SW800, an external signal can be input into the unit. For example, the camera signal and colour bar signal can be fed into this unit as external sources.

RS-232C Interface

This controller allows you to transmit the memory data to the external equipment through the DATA IN/OUT terminal in the RS-232C port and receive the data from the external source. With this port, communication with external devices, such as computer, is also made possible.

Multi Event Memory

This unit can enter up to 128 individual data items into its built-in EDL, (Edit Decision List).

CTL/TC Editing

Editing can be performed in combination with the Control (CTL) signal and the Time Code signal.

Audio Split Editing

The audio and video signals can be edited independently timing.

External Control Equipment

The auxiliary control connector enables connection to an external control unit.

TCG/TCR with the 34P I/F Board

With the optional 34-pin Interface Board, time code editing can be performed as the unit is equipped with a built-in TCR/TCG.

Standard Accessories

• 15P-15P Cable	5m
• Rack Mount Adaptors	2 pcs

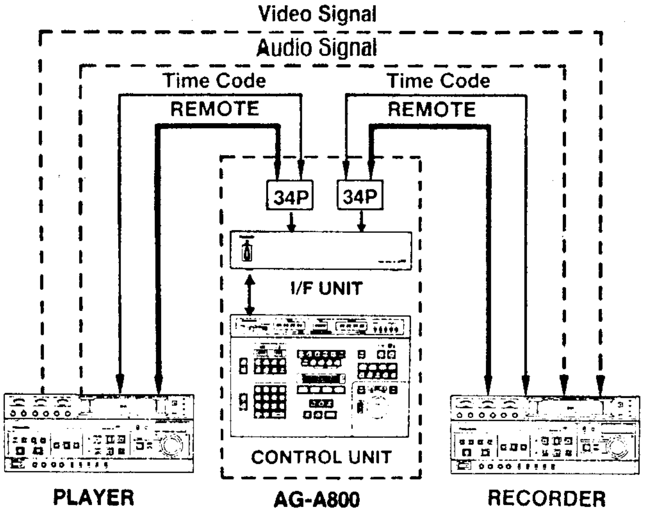
Optional Accessories

• 34P Interface Board	AG-IA81
• 9P Interface Board	AG-IA82
• Audio/Video Switcher	AG-SW800
• Audio/Video Switcher Remote Controller	AG-RM800

System Combinations

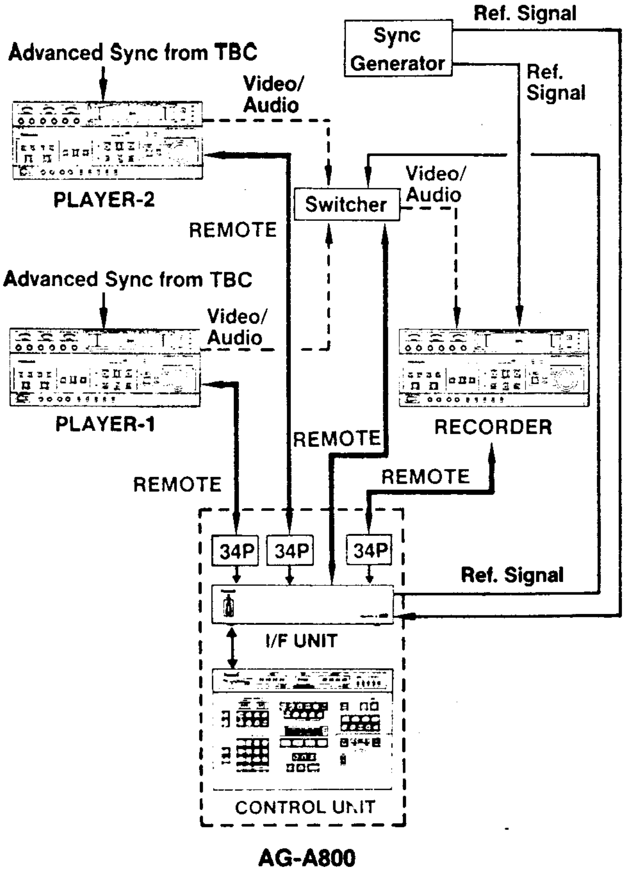
Basic system

This basic dubbing editing system is set up by connecting a PLAYER (P-VTR) and RECORDER (R-VTR) to this unit. Insert the 34P I/F Board into the unit.


Video Signal
Audio Signal
Time Code
Time Code
REMOTE
REMOTE
34P
34P
I/F UNIT
CONTROL UNIT
PLAYER
AG-A800
RECORDER

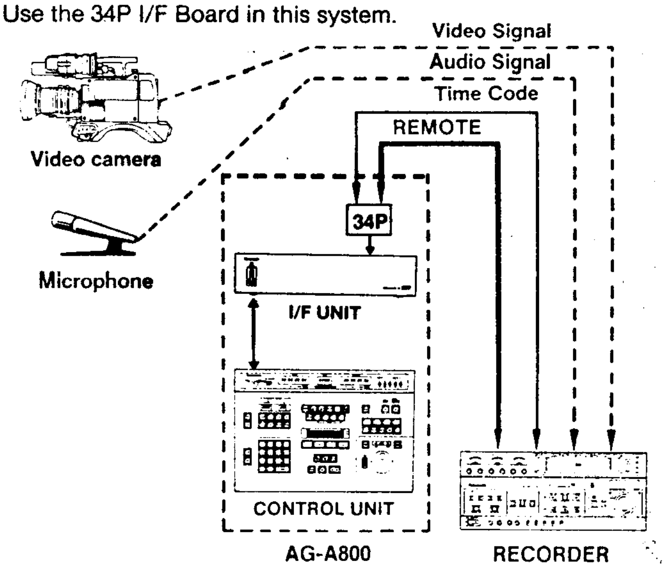
Connection to two PLAYERs

Two PLAYERs and the 34P I/F Board are used in this system.
Time Base Corrector can be required at any case.
For details, see page 12.


Ref. Signal
Sync Generator
Ref. Signal
Advanced Sync from TBC
Video/ Audio
PLAYER-2
Video/ Audio
Switcher
REMOTE
Advanced Sync from TBC
Video/ Audio
PLAYER-1
RECORDER
REMOTE
REMOTE
REMOTE
34P
34P
34P
Ref. Signal
I/F UNIT
CONTROL UNIT
AG-A800

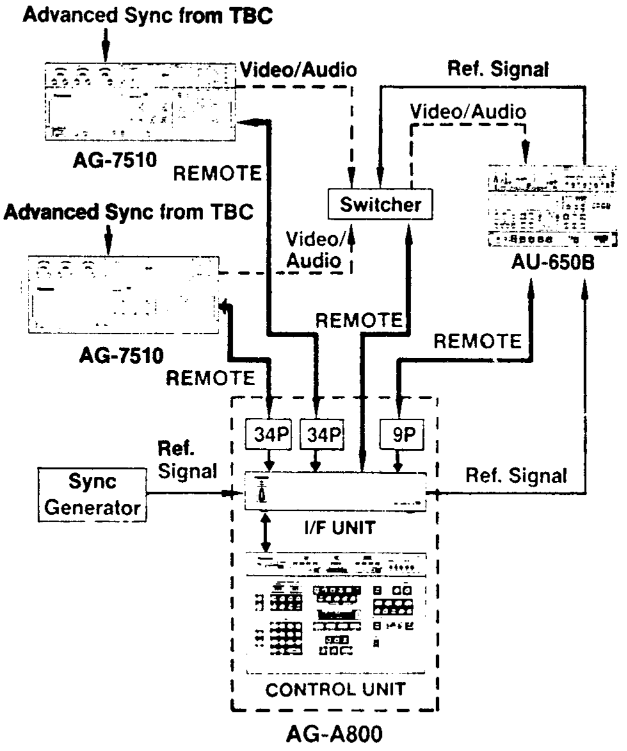
Connection to the video camera

This system is set up to edit the video signal from the video camera on the RECORDER.
Use the 34P I/F Board in this system.


Video Signal
Audio Signal
Time Code
REMOTE
Video camera
34P
Microphone
I/F UNIT
CONTROL UNIT
AG-A800
RECORDER

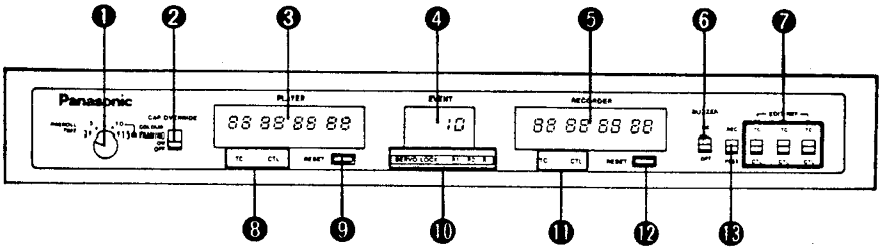
Connection to the MII VTR (9P I/F Board)

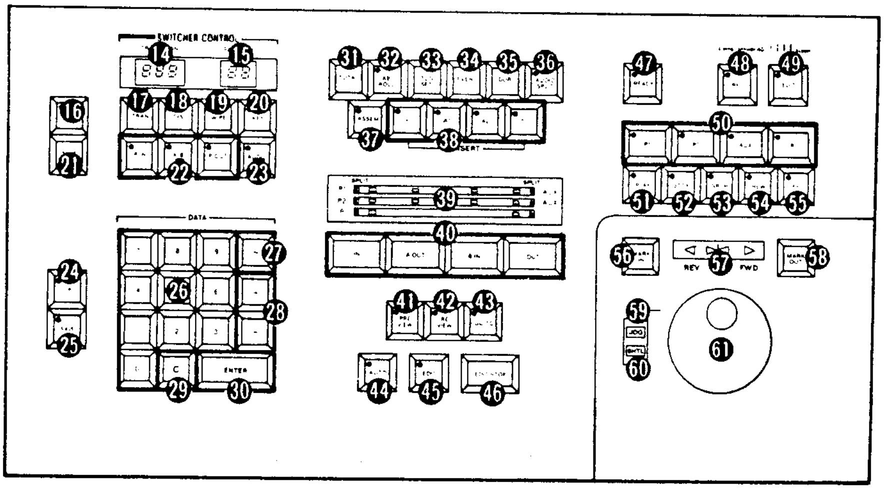
The MII VTR (AU-650B) and the 9P I/F Board are used in this system.
Time Base Corrector can be required at any case.


Advanced Sync from TBC
Video/Audio
Ref. Signal
AG-7510
REMOTE
Video/Audio
Switcher
Advanced Sync from TBC
Video/ Audio
AU-650B
REMOTE
REMOTE
AG-7510
REMOTE
34P
34P
9P
Ref. Signal
Sync Generator
Ref. Signal
I/F UNIT
CONTROL UNIT
AG-A800

Controls and their Functions

CONTROL PANEL





① PREROLL TIME Selector Switch

Sets the preroll time to 3, 5, 7, 10 or 15 seconds. 10-second and 15-second setting are for colour frame editing.

② CAPSTAN OVERRIDE Selector Switch

Synchronization is executed by controlling the speed of the capstan on the VTR.

COLOUR FRAMING: To execute colour frame synchronized edits.
- When using the 34P I/F Board (using the S-VHS or VHS VTR), the VTR setting will be required.

ON: To execute an edit using a VTR that can execute synchronization.

OFF: The VTR will not execute synchronization. (Editing precision decreases.)

③ DISPLAY For PLAYER

Displays the editing points, the current tape position of the PLAYER and error message.

④ EVENT No. Display

Displays the event number.

⑤ DISPLAY For RECORDER

Displays the editing points and the current tape position of the RECORDER.

⑥ Buzzer ON/OFF

The setting of this switch determines whether the buzzer is activated or disabled.

ON → The buzzer will function whenever an operation error is detected.

OFF → The buzzer is disabled.

⑦ EDIT REF Selector Switch

Selects the tape position displayed, either the time code (TC) or control signal (CTL).

Whether the reference signal is TC or CTL depends on the setting of this switch.

⑧ ⑪ TC/CTL lamp

TC: This lamp lights up when the tape position is displayed from Time Code.

CTL: This lamp lights up when the tape position is displayed from the control signal (CTL).

⑨ ⑫ RESET Button

If it is pressed when the CTL lamp is lit, the display indication of the currently selected VTR is reset to "0" and its edit data is erased.

⑩ SERVO LOCK lamp

P1: Lights up when the cylinder and the capstan servo of PLAYER 1 are locked.

P2: Lights up when the cylinder and the capstan servo of PLAYER 2 are locked.

R: Lights up when the cylinder and the capstan servo of the RECORDER are locked.

⑬ REC RUN/FREE RUN Selector Switch

REC RUN: Time code increases when the VTR is in the REC mode.

FREE RUN: Time code increases irrespective of the VTR mode.

⑭ TRANSITION TIME DISPLAY

Used to display the transition time in frame units during the Wipe, Dissolve or DSK mode. Refer to page 41.

⑮ PATTERN NUMBER DISPALY

Used to display the number of patterns during the Wipe or Dissolve mode. Refer to page 41.

⑯ AUTO key/lamp

Used to set the edit point entry mode when the AG-SW800 audio/video switcher is used and the video picture is manually switched using the Take key. Refer to page 51.

⑰ TRAN key/lamp

Used to set the transition time. Refer to page 41.

⑱ DIS key/lamp

Used to switch the screen using the dissolve effect. After pressing this key, you can do different kinds of dissolve effects by specifying the number.

The P IN/OUT point will give a fade in/out effect.

Refer to page 46.

⑲ WIPE key/lamp

Used to switch the screen using the wipe effect. After pressing this key, you can use different wipe patterns by entering the pattern numbers. Refer to page 47.

⑳ KEY key/lamp

Used to set the down stream keyer effect. Refer to page 48.

㉑ TAKE key

If pressed when the sync-roll is executed, the switcher will switch the A roll to the B roll. Refer to page 51.

㉒ Effect point select key

Used to select the effect points.

P IN: Press this key to record the fade-in effect.
A/B: Press this key to record effect at the A/B point.
P OUT: Press this key to record the fade-out effect.

㉓ AUDIO key/lamp

Used to record the audio effect. Release the key to record the normal video effect. Refer to page 50.

㉔ LOAD key/lamp

If pressed, the lamp will light up and the edit data will be entered from the computer through the 25-pin DATA IN/OUT terminal. Refer to page 65.

㉕ SAVE key/lamp

If pressed, the lamp will light up and the edit data will be output to the computer through the 25-pin DATA IN/OUT terminal. Refer to page 65.

㉖ 10 key Numeric Pad

Used to enter the desired numbers of the edit IN/OUT points, and event after selecting the registering mode.

㉗ ~ key

Used to set or check the range for automatic edits.

Press this key to set or check the range of the automatic editing. (See pages 35, 60.)

㉘ +, − key

Used to change the edit point by addition and subtraction.

㉙ C (Clear) key

Press this key to delete the registered data.

㉚ ENTER key

Used for executing the entry.

㉛ TOTAL key

After this key is pressed, the display shows the time from the start point to the current OUT point of the event on the RECORDER tape. If no OUT point of the RECORDER has been registered, the time to the IN point of the RECORDER will be shown on the display. Also, the error code is displayed on the PLAYER display. (See pages 55 and 72.)

㉜ A/B ROLL key/lamp

Press this key to set the unit to the A/B mode. In this mode, two PLAYERs can be used for an edit. When the unit is set to the normal mode, this lamp will go out.

㉝ TCG SET key

Used to set the TC (time code).

㉞ EVENT key

Press this key to set or change event numbers.

㉟ DUR (Duration) key

Press this key to check the time length of an edit. (See page 59.)

㊱ AUDIO SPLIT key/lamp

Press this key to enter audio edit points only. After these points have been entered, the lamp goes out and the video edit points can be entered.

㊲ ASSEM key/lamp

Press this key to execute assemble editing.

㊳ V, A1, A2, TC keys/lamps

Used in the insert editing mode.

V: Press to select the video signal.
A1: Press to select the signal of Audio Channel 1.
A2: Press to select the signal of Audio Channel 2.
TC: Press to select the time code signal.
Note: This key can not be used when a 34-pin I/F Board has been installed in the RECORDER VTR.

㊴ EDIT POINT Entry lamp

Lights up when an edit point is entered. (See page 57.)

㊵ EDIT POINT (IN/ A OUT/ B IN/ OUT) Selection keys

Used to enter or check the edit points.

㊶ PREVIEW key/lamp

Used to rehearse the editing process.

㊷ REVIEW key/lamp

If this key is pressed when editing has been carried out, the tape will automatically return to the beginning of the EVENT which has just been edited. This allows confirmation of editing results.

㊸ GO TO key/lamp

Press this key to have access to edit points or desired points input with the 10 key Numeric Pad.

㊹ AUTO key/lamp

Used for automatic continuity editing.
If pressed together with the Edit (Preview or Review) key, the lamp will light up and the specified events will be edited automatically and continuously (automatic review or preview). Refer to page 34.

㊺ EDIT key/lamp

Press this key to edit the current event indicated on the display panel.

㊻ EDIT STOP key

Press this key to stop an edit halfway.
If no edit OUT point has been entered on the RECORDER, the position of the tape where this key was pressed will be entered as the edit OUT point. The tape will be postrolled and rewound to the edit OUT point.

㊼ READY key/lamp

This is the Standby ON/OFF key with lamp. To set the Standby OFF mode on the VTR during the Standby ON mode (the lamp lights up), press this key. The lamp will go out. If the key is pressed again, the Standby ON mode will be set and the lamp will light up.
In VHS recording systems, Pause will be set if the mode is Standby ON and Stop if it is Standby OFF.

㊽ REC key/lamp

Press this key together with the PLAY key to start the recording of the video and audio signals. (Only when RECORDER is selected for the VTR.) Also, when pressed alone, the RECORDER switches to the E-E mode.

㊾ EDIT key/lamp

Press this key and the PLAY key (51) together to execute an edit manually during playback. The lamp will light up. (See page 28.)

- According to the VTRs, the preroll operation may excute during manual editing (On-The-Fly editing).

㊿ VTR (P1/P2/R/AUX) Selection keys/lamps

Select the VTR to be controlled.

P1 and P2 ......Control the PLAYERs
R ....Controls the RECORDER
AUX ....Executes recording of edit points for the external equipment.

- Used to switch the output on the AG-SW800 if it is connected.

(51) PLAY key/lamp

Press this key to play back the tape on the VTR selected by the VTR SELECTION key.

(52) STOP key/lamp

Press this key to stop the VTR tape movement.
If pressed, the lamp will light up and the tape on the selected VTR will stop running. If the VTR is VHS, the Pause mode will be set.

(53) SRCH (Search) key/lamp

Press this key to set the search mode on the VTR selected by the VTR SELECTION key.
Use the SEARCH DIAL (61) to control the tape movement.

(54) REW key/lamp

Press this key to rewind the tape.

(55) FF key/lamp

Press this key to fast forward the tape.

(56) (58) MARK IN/OUT keys

These are the edit point entry keys. Press these keys to enter the edit IN/OUT points.

(57) SEARCH Indicator

Indicates the tape movement direction controlled by the SEARCH DIAL and the still picture mode.

(59) JOG lamp

Lights up in the JOG Mode.

(60) SHTL lamp

Lights up in the SHUTTLE mode.

(61) SEARCH DIAL

Used to search for the required picture, such as the edit points.

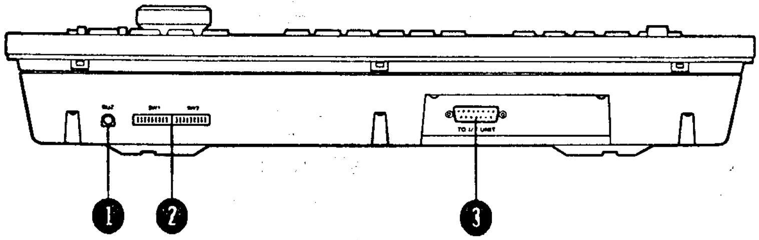
JOG mode (▃)

The JOG lamp lights up when the unit is in this mode.
The picture can be played forwards or backwards depending on the SEARCH DIAL movement at up to double the speed, i.e., from 0 speed (still picture).

SHTL mode (█)

The STHL lamp lights up when the unit is in this mode.
The picture can be played forwards or backwards depending on the SEARCH DIAL movement at up to 10 times the normal speed (when using AG-7500/7510).

CONTROL PANEL CONNECTORS

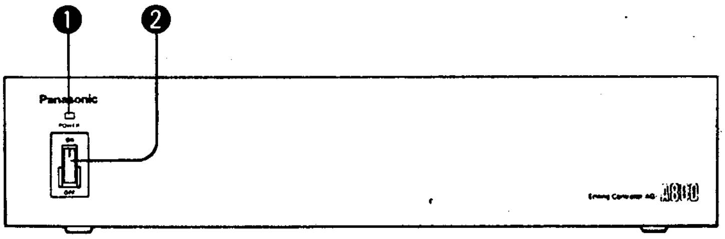


① BUZZER Volume Control
Adjusts the buzzer volume.

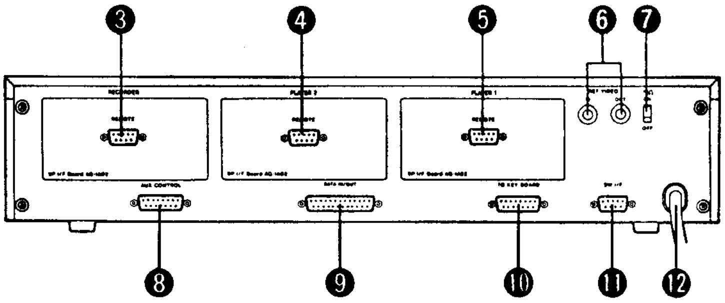
② DIP Switch SW1 and SW2
For details, refer to page 69.

③ TO I/F UNIT Connector (15P)
Used to connect the unit to the 15-pin "TO KEYBOARD Connector" on the I/F UNIT.

I/F UNIT



I/F UNIT CONNECTORS



① POWER Indicator
Lights up when this unit is turned on.

② POWER Switch

③ RECORDER Slot
Connects to the REMOTE Connector on the RECORDER with the optional 9-pin (AG-IA82) or 34-pin (AG-IA81) interface board installed into the unit.

④ PLAYER 2 Slot
Connects the REMOTE Connector on PLAYER 2 to the optional 9-pin or 34-pin interface board installed into the unit.

⑤ PLAYER 1 Slot
Connects the REMOTE Connector on PLAYER 1 to the optional 9-pin or 34-pin interface board installed into the unit.

⑥ REF VIDEO IN/OUT Connectors (BNC)
Used to control the VTRs connected to the unit by the synchronizing (reference) signal.

⑦ 75 ohm Termination Switch
Set this switch to "ON" to terminate the reference signal on the unit and "OFF" to use for loop through.

⑧ AUX CONTROL Connector (15P)
Used to connect this controller to output the start pulse to the external unit. (See page 71.)

⑨ DATA IN/OUT Connector (25P)
Used for the connection of the personal computer with the RS-232C cable.

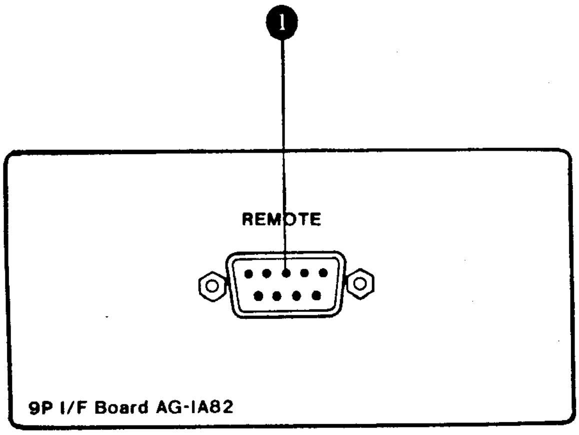
⑩ TO KEYBOARD Connector (15P)
Used to connect this unit to the 15-pin "TO I/F UNIT" Connector on the CONTROL PANEL.

⑪ SW I/F Connector (9P)
Used to connect this unit to the 9-pin "EXT CONTROL IN" Connector on the optional switcher (AG-SW800).

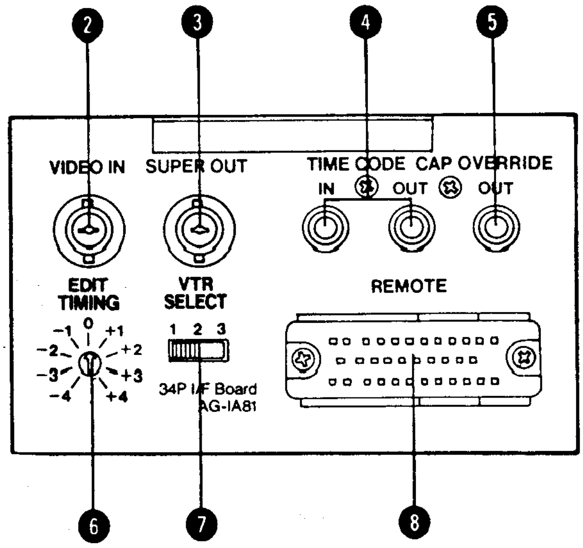
⑫ POWER Cord
Connects this unit to the AC outlet.

INTERFACE BOARD

9P (AG-IA82)


❶
REMOTE
9P I/F Board AG-IA82

34P (AG-IA81)


❷
❸
❹
❺
VIDEO IN
SUPER OUT
TIME CODE
CAP OVERRIDE
IN
OUT
OUT
EDIT TIMING
VTR SELECT
REMOTE
0
-1
+1
-2
+2
-3
+3
-4
+4
1 2 3
34P I/F Board AG-IA81
❻
❼
❽

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9 Pin Interface

Use this interface board when connecting the unit to the Studio MII VTR for broadcast.

❶ REMOTE Connector (9P)

Used to connect to the REMOTE Connector of the VTR.

34 Pin Interface

Use this interface board to connect the unit to the AG-7500, AG-7510 and AG-6500

❷ VIDEO IN Connector (BNC)

Used to connect to the VIDEO OUT Connector of the VTR. This connector must be connected in order to perform time code editing.

❸ SUPER OUT Connector (BNC)

Used to connect a TV monitor to superimpose the time code on the video signal from the VIDEO IN Connector.

❹ TIME CODE IN/OUT Connector (PHONO)

As the unit is equipped with a time code reader/generator, connect to the TC IN/OUT Connector of the VTR when time code editing is exeuted.

❺ CAPSTAN OVERRIDE OUT Connector (PHONO)

Used to connect the unit to the CAPSTAN OVERRIDE IN of the VTR.

❻ EDIT TIMING Adjust Switch

Used to adjust the play start time in frame units.

❼ VTR SELECT Switch

Set this switch as shown below according to the type of VTRs. (See page 78.)

Position of Switch	VTR type
1	AG-7500, AG-7510 (S-VHS)
2	AG-6500 (VHS)
3	NV-9600, NV-9240

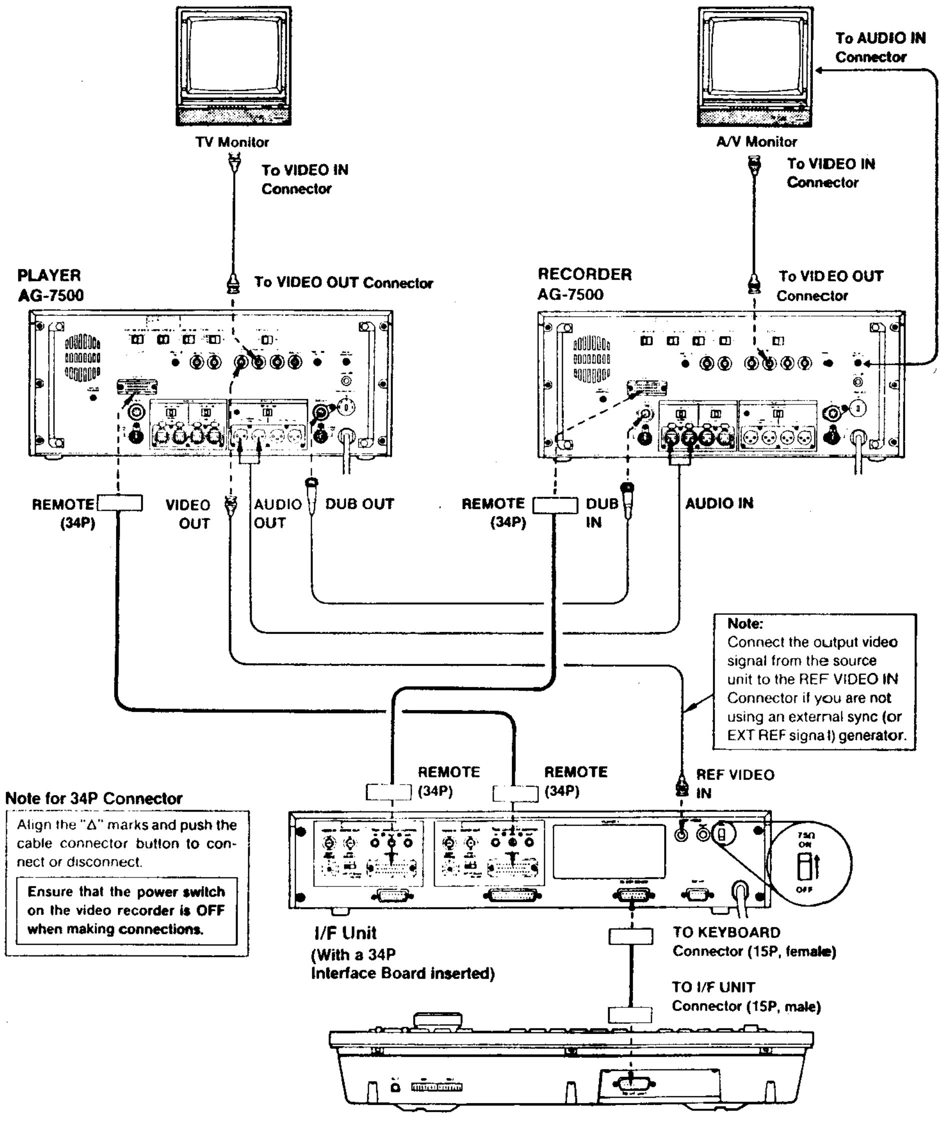
❽ REMOTE Connector (34P)

Used to connect to the REMOTE Connector of the VTR.

* These interface boards can be used to both PLAYER and RECORDER VTR side.

Connections

Basic Connection


TV Monitor
To VIDEO IN Connector
PLAYER AG-7500
To VIDEO OUT Connector
REMOTE (34P)
VIDEO OUT
AUDIO OUT
DUB OUT
A/V Monitor
To AUDIO IN Connector
To VIDEO IN Connector
RECORDER AG-7500
To VIDEO OUT Connector
REMOTE (34P)
DUB IN
AUDIO IN
REMOTE (34P)
REMOTE (34P)
REF VIDEO IN
75Ω ON
OFF
I/F Unit
(With a 34P Interface Board inserted)
TO KEYBOARD Connector (15P, female)
TO I/F UNIT Connector (15P, male)

Note:
Connect the output video signal from the source unit to the REF VIDEO IN Connector if you are not using an external sync (or EXT REF signal) generator.

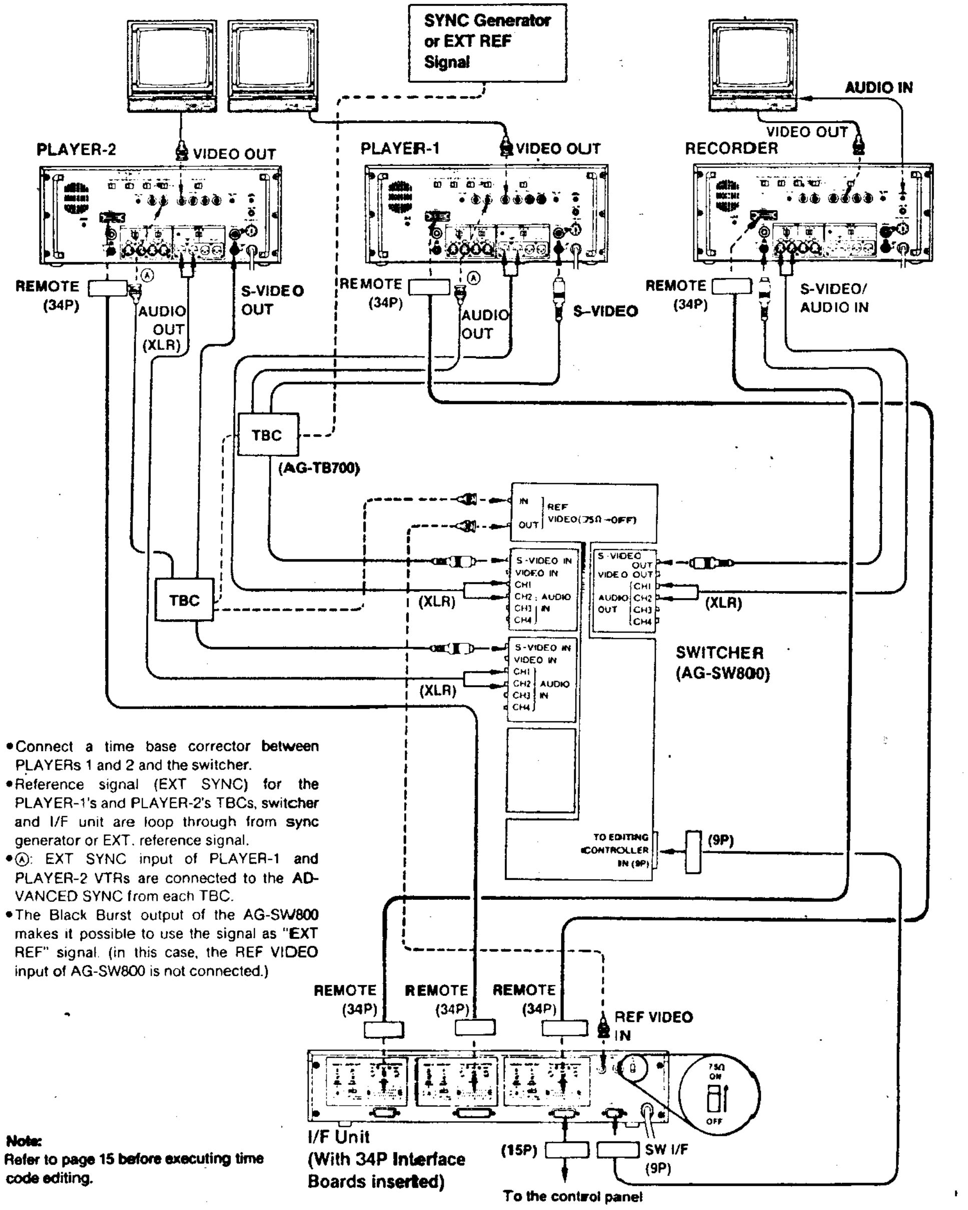
Control Panel

Note for 34P Connector

Align the "Δ" marks and push the cable connector button to connect or disconnect.

Ensure that the power switch on the video recorder is OFF when making connections.

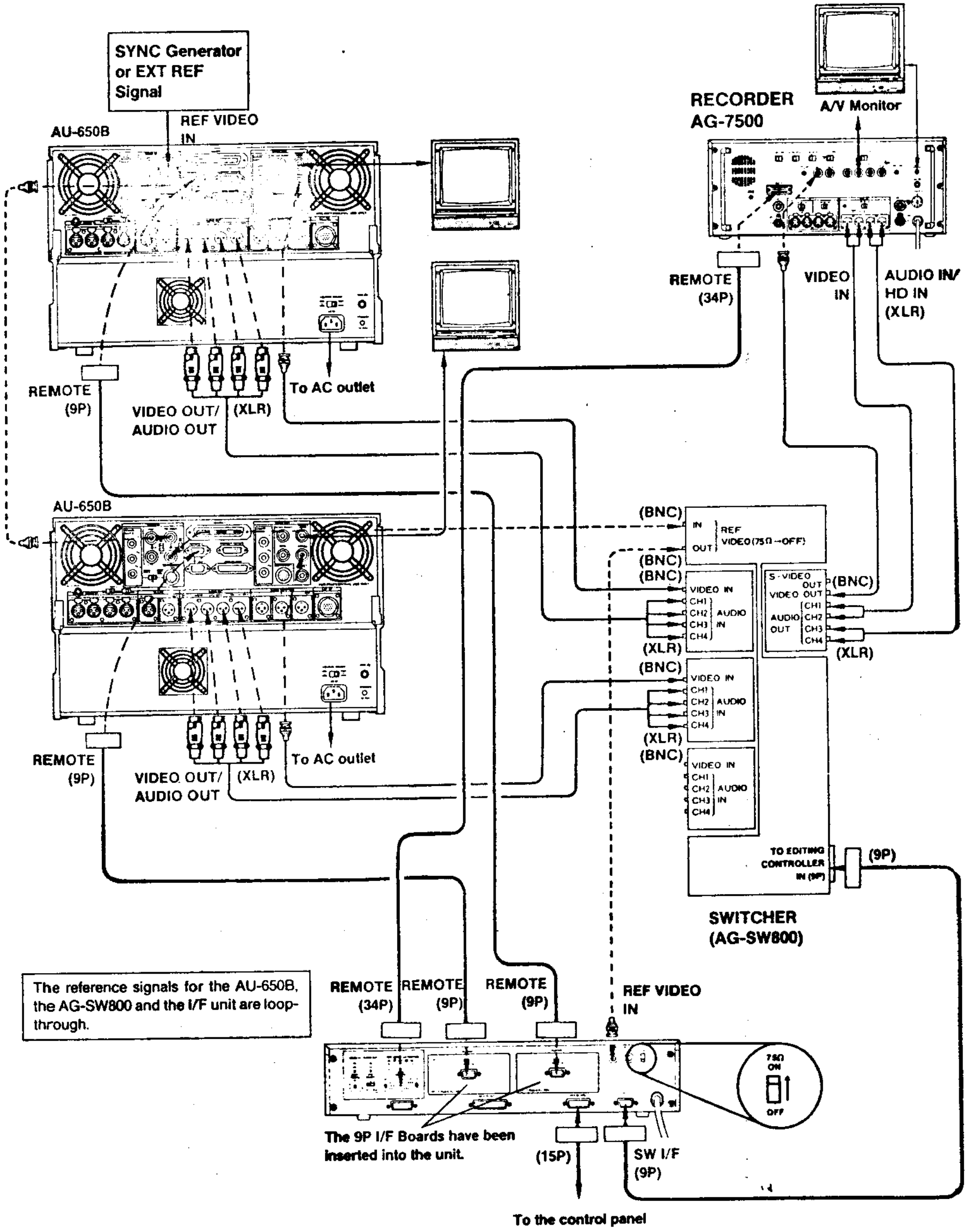
Connections for A/B Roll Editing


SYNC Generator or EXT REF Signal
PLAYER-2
VIDEO OUT
REMOTE (34P)
AUDIO OUT (XLR)
S-VIDEO OUT
PLAYER-1
VIDEO OUT
REMOTE (34P)
AUDIO OUT
S-VIDEO
RECORDER
VIDEO OUT
AUDIO IN
REMOTE (34P)
S-VIDEO/ AUDIO IN
TBC
(AG-TB700)
TBC
IN
OUT
REF VIDEO(75Ω→OFF)
S-VIDEO IN
VIDEO IN
CH1
CH2
CH3
CH4
AUDIO IN
S-VIDEO OUT
VIDEO OUT
AUDIO OUT
(XLR)
(XLR)
(XLR)
SWITCHER (AG-SW800)
TO EDITING CONTROLLER IN (9P)
(9P)
REMOTE (34P)
REMOTE (34P)
REMOTE (34P)
REF VIDEO IN
75Ω ON
OFF
I/F Unit
(With 34P Interface Boards inserted)
(15P)
SW I/F (9P)
To the control panel

- •Connect a time base corrector between PLAYERs 1 and 2 and the switcher.
- •Reference signal (EXT SYNC) for the PLAYER-1's and PLAYER-2's TBCs, switcher and I/F unit are loop through from sync generator or EXT. reference signal.
- •Ⓐ: EXT SYNC input of PLAYER-1 and PLAYER-2 VTRs are connected to the ADVANCED SYNC from each TBC.
- •The Black Burst output of the AG-SW800 makes it possible to use the signal as "EXT REF" signal. (in this case, the REF VIDEO input of AG-SW800 is not connected.)

Note:
Refer to page 15 before executing time code editing.

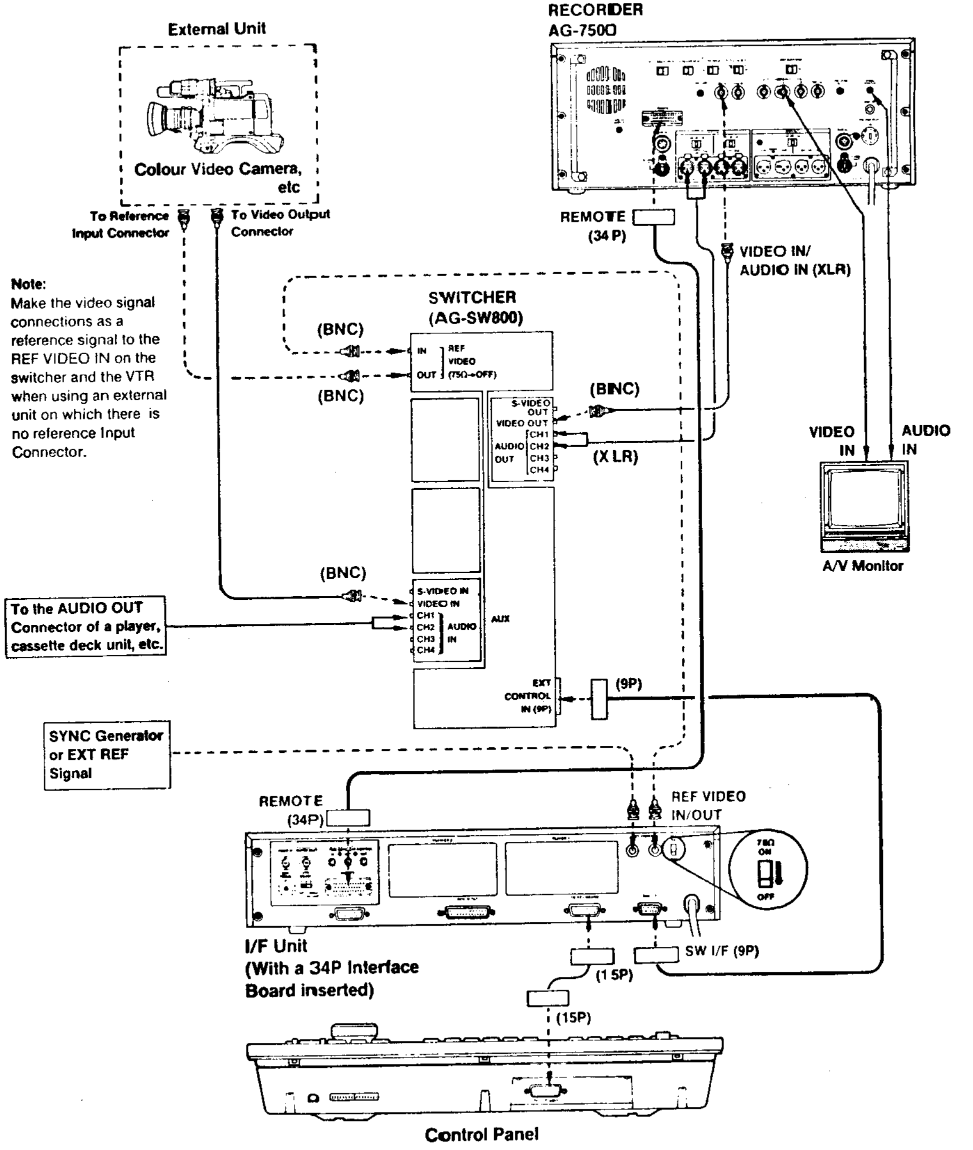
Connections for Editing by using the 9P I/F Board (option)


SYNC Generator or EXT REF Signal
REF VIDEO IN
AU-650B
REMOTE (9P)
VIDEO OUT/ AUDIO OUT
(XLR)
To AC outlet
AU-650B
REMOTE (9P)
VIDEO OUT/ AUDIO OUT
(XLR)
To AC outlet
RECORDER AG-7500
A/V Monitor
REMOTE (34P)
VIDEO IN
AUDIO IN/ HD IN (XLR)
(BNC)
IN
OUT
REF VIDEO (75Ω→OFF)
(BNC)
(BNC)
VIDEO IN
CH1
CH2
CH3
CH4
AUDIO IN
(XLR)
(BNC)
VIDEO IN
CH1
CH2
CH3
CH4
AUDIO IN
(XLR)
(BNC)
VIDEO IN
CH1
CH2
CH3
CH4
AUDIO IN
S-VIDEO OUT
VIDEO OUT
AUDIO OUT
CH1
CH2
CH3
CH4
(BNC)
(XLR)
TO EDITING CONTROLLER IN (9P)
(9P)
SWITCHER (AG-SW800)
REMOTE (34P)
REMOTE (9P)
REMOTE (9P)
REF VIDEO IN
75Ω ON
OFF
The 9P I/F Boards have been inserted into the unit.
(15P)
SW I/F (9P)
To the control panel

The reference signals for the AU-650B, the AG-SW800 and the I/F unit are loop-through.

Connection to an External Unit (AUX)

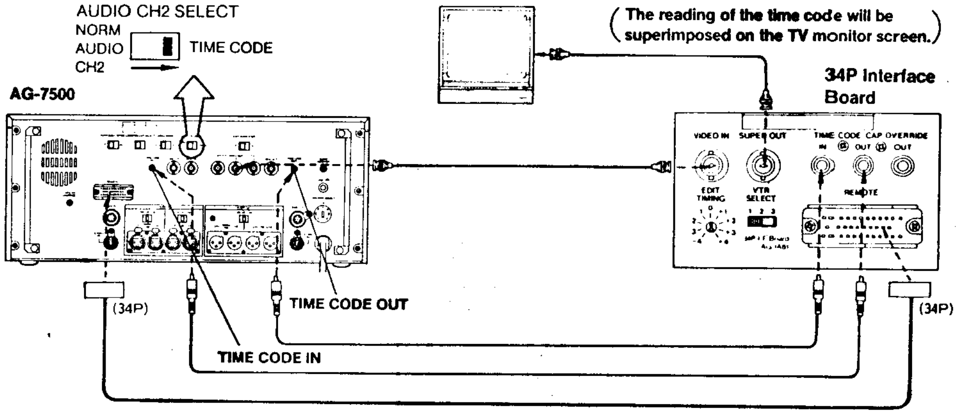
This unit can be connected to a Camera or Teloper which may be used as external auxiliary units.


External Unit
Colour Video Camera, etc
To Reference Input Connector
To Video Output Connector
RECORDER AG-7500
REMOTE (34 P)
VIDEO IN/ AUDIO IN (XLR)
SWITCHER (AG-SW800)
(BNC)
IN
OUT
REF VIDEO (75Ω→OFF)
(BNC)
S-VIDEO OUT
VIDEO OUT
AUDIO OUT
CH1
CH2
CH3
CH4
(BNC)
(X LR)
(BNC)
S-VIDEO IN
VIDEO IN
CH1
CH2
CH3
CH4
AUDIO IN
AUX
EXT CONTROL IN (9P)
(9P)
VIDEO IN
AUDIO IN
A/V Monitor
To the AUDIO OUT Connector of a player, cassette deck unit, etc.
SYNC Generator or EXT REF Signal
REMOTE (34P)
REF VIDEO IN/OUT
75Ω ON
OFF
I/F Unit (With a 34P Interface Board inserted)
SW I/F (9P)
(15P)
(15P)
Control Panel

Note:
Make the video signal connections as a reference signal to the REF VIDEO IN on the switcher and the VTR when using an external unit on which there is no reference Input Connector.

Connection for Using the Time Code Signal

If the time code signal has been recorded on the tape, precision edits can be executed because the position of the tape is indicated accurately.


AUDIO CH2 SELECT
NORM
AUDIO CH2
TIME CODE
AG-7500
The reading of the time code will be superimposed on the TV monitor screen.
34P Interface Board
VIDEO IN
SUPER OUT
TIME CODE IN OUT
CAP OVERRIDE OUT
EDIT TIMING
VTR SELECT
REMOTE
(34P)
TIME CODE OUT
TIME CODE IN
(34P)

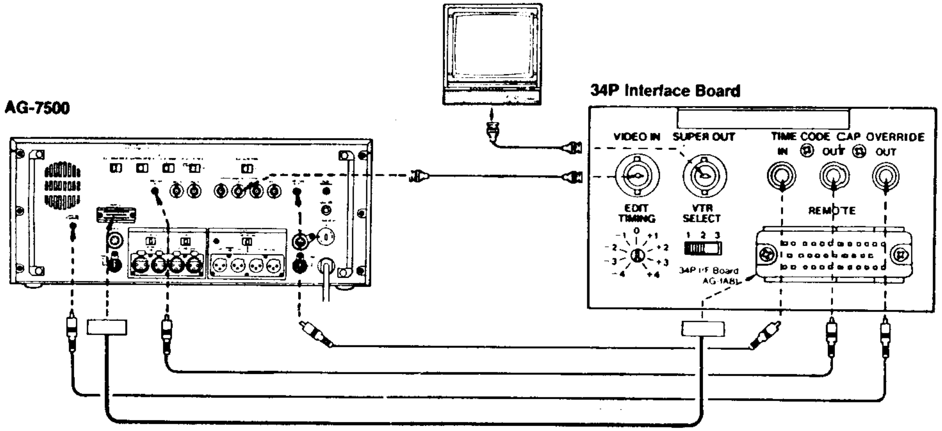
- This interface board equipped with a time code generator reader is capable of executing time code editing when it is connected to the time code IN/OUT connectors on the VTR.

- When time code editing is executed on S-VHS or VHS tapes, the normal CH2 audio signal can not be recorded because the time code (TC) signal will be recorded on the track for the normal audio of CH2.

Connection for Synchronization

This unit can reduce errors by connecting VTRs equipped with connector for synchronization, i.e. CAPSTAN OVERRIDE connector when synchronized editing is executed.

- To execute normal editing, connect the controller to the RECORDER VTR.
- To execute A/B roll editing, connect the controller to both PLAYER and RECORDER VTR.
- **Please refer to page 69 in the setting of the DIP switch 1-4~6 on "DIP Switch Settings".**


AG-7500
34P Interface Board
VIDEO IN
SUPER OUT
TIME CODE IN OUT
CAP OVERRIDE OUT
EDIT TIMING
VTR SELECT
REMOTE
34P I/F Board AG-IA81

Preparations

Preparations of the VTR connected to this unit

After connecting the unit to the AG-7500, AG-7510 and AG-6500:

- Set the CONTROL switch to "REMOTE".
- Set the CONTROLLER selector to "1".
- Set the EDIT switch to "ON".
- When executing time code editing, set the AUDIO CH2 selector to "TIME CODE".
- When inputting the external SYNC signal, set the SYNC switch to "EXT".
- Set the FRAME SERVO switch to "FRAME".
  (When executing colour frame editing, set to "COLOUR")

After connecting the unit to the AU-650B:

- Set the CONTROL switch to "REMOTE".
- Set the REMOTE switch to "REM 2 (9P)".

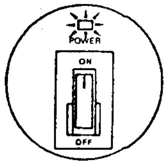
Preparation for connecting the Switcher AG-SW800

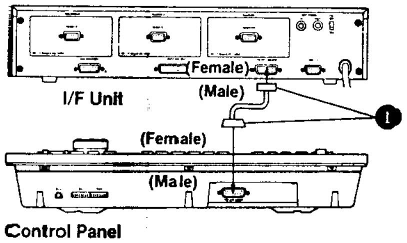
Set the CONTROL switch to "REMOTE".

Preparations of this unit

❶ Connect the "TO KEYBOARD" Connector (15P, female) on the I/F Unit to the "TO I/F UNIT" Connector (15P, male) on the control panel.

❷ Turn on the Power Switch. The corresponding indicator will light up.

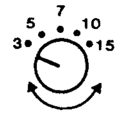

POWER
ON
OFF


(Female)
I/F Unit
(Male)
❶
(Female)
(Male)
Control Panel

● **Check that all the displays are in operation. The current positions of the tapes on the selected VTRs are shown on the displays of the players and recorder.**
If the displays are not operating, turn the unit off and then on after verifying that the VTRs are properly connected.

❹ Set the switches on the Control Unit as required.

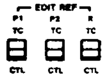
Set the preroll time with the **PREROLL TIME** Selector Switch.



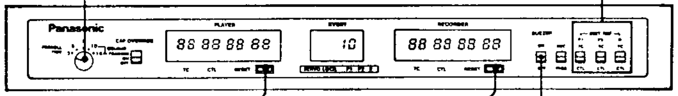
The preroll time can be set to **3, 5, 7, 10 or 15** seconds.

Note:
When executing colour frame editing, adjust the duration of the preroll time to more than 10 seconds. Set it to more than 5 seconds to execute an edit accurately by controlling the speed of the capstan on the VTR.

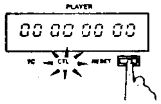
Select the reading mode for the positions of the tapes to be shown on the displays for the players and recorder: Time Code (TC) or Control (CTL).



Note:
Do not change the setting of **this switch when** entering the edit points. Make sure **to set the switch** before the entry of the edit points.
- When executing automatic editing, **only use the** time code signal. If the control **sign is used, values** will not be read by the VTR **accurately.**



In the CTL mode, press the RESET buttons to reset **the positions** on the displays for the players and **recorder. When these** buttons are pressed, the **readout displays** will be reset to "00 00 00".



Note:
If an edit point **is** recorded with **the Control** (CTL) signal, the **record** data of the **VTR selected** by the EVENT **displayed by** pressing **the** RESET button will be erased.
Therefore, do **not** press this button.

Buzzer ON/OFF switch

ON......To enable operation **to be verified,** the buzzer emits a single beep when edit points are entered or when cutting in or out during editing. It beeps 3 times **as a** warning when a mistake is made in operation or editing.

OFF.....**The buzzer does not beep.**

Note:
In the case **of a warning, press the TOTAL key to** display **the error message.**

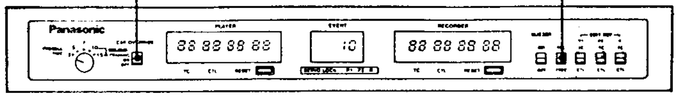
Set the CAP **OVERRIDE** Selector **Switch** to **any of** the positions **below** as desired.

COLOUR FRAMING ...To execute colour framing editing on the VTR.
ON..........To be set when executing an edit at frame 0 which is the edit IN point.
OFF.........To be set when using a VTR that can not execute synchronization.

Note:
Change the DIP switch setting on the control unit (see page 69) when executing an edit with a VTR on which there is no CAP OVERRIDE Connector. Set this switch to the "OFF" position when using a 3/4-inch VTR.

Set this switch as desired when time code **editing** is executed.
REC.....For time code generation when the **VTR** is in the recording mode. The counting will start simultaneously at the beginning and stop at the end of the recording.
FREE....For continuous time code generation regardless of the VTR operational **mode.** When the generator has been adjusted to the standard clock time, the duration time of the recording can be recorded on tape.

Note:
This switch has no effect when **a 9-pin interface** board is used.



Editing

The flow chart of the basic editing **operation is shown below.**
Refer to this chart to make edits.

■ To create the edit tape, **follow the procedure for initial edits** .... **Refer to page 19.**

1. Selecting the editing mode
Select either Assemble or **Insert.** .... **Refer to page 20.**

2. Selecting the VTR
Select the **VTR** Player (1 or 2), **auxiliary equipment or VTR recorder on which the edit points are entered.** .... **Refer to page 21.**

3. Entering the edit points
There are three ways of entering the poin**ts and these** are as follo**ws:**
- Enter the points with the Mark IN and **Mark OUT** keys after locating them with the search dial.
- Enter the points with the numeric keys.
- Enter the points with the + and – keys.

.... Refer to page 21.

■ Checking the edit data .... **Refer to page 56.**

4. Preview
Without making **the actual edit it is possible to play a rehearsal of the edit,** if you wish. .... **Refer to page 25.**

5. Starting the editing
- When executing **automatic** continuity **editing** or entering the edit data for the next **event without starting the edit immediately, repeat all** the procedure from **step 1.**

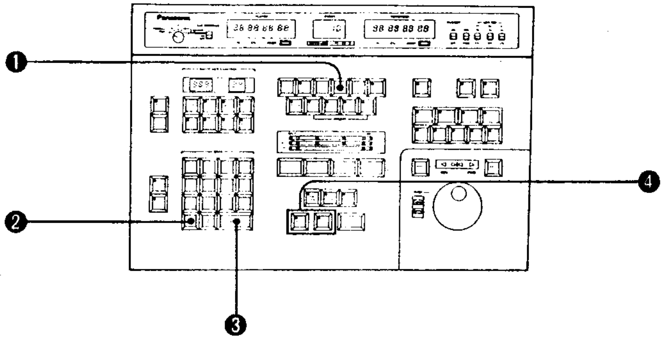
.... **Refer to page 26.**

6. **Review**
Check the result of the edit recorded on the tape. .... **Refer to page 27.**

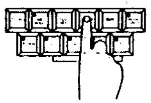
Note:
The flow chart above is only for basic editing operation.
There are other procedures for manual, A/B roll, sync-roll and audio split editing.

Initial Editing

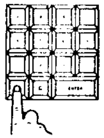
When executing an edit on a blank tape on which no reference signal (black burst) has been recorded or on the pre-recorded tape, the reference signal is necessary to perform the edit
If the AG-SW800 is not connected, input the composite signal (black burst signal, etc.) to the input terminal of the recorder side VTR.



❶ Press the EVENT key.

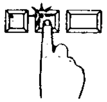


❷ Type "0" using the 10 key Numeric Pad.

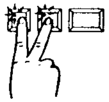


❸ Press the ENTER key.

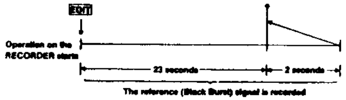
❹ **Press the EDIT key to record the reference signal on the preroll portion of the tape. The EDIT lamp will light up.**



- Press the EDIT key while holding down the AUTO key to execute assemble editing after entering event number 0000. The AUTO and EDIT lamps will light up.

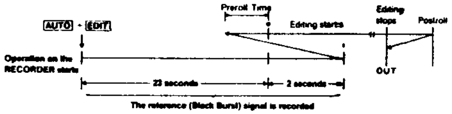


<Initial Edit Function>



EDIT
Operation on the RECORDER starts
23 seconds
2 seconds
The reference (Black Burst) signal is recorded

- **After the end of the initial edit the tape will stop at the IN point of the initial event.**



AUTO
EDIT
Operation on the RECORDER starts
Preroll Time
Editing starts
Editing stops
Postroll
OUT
23 seconds
2 seconds
The reference (Black Burst) signal is recorded

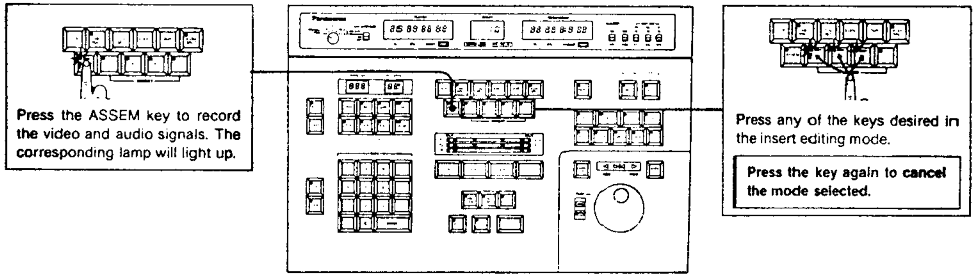
- After the end of the initial edit the edit of the first event will start.

- It is possible to rewind the tape to the beginning at initial edit even from the middle of the tape.
- If edit data is recorded on the tape, the tape is rewound to the beginning and the time code display shows a value 23 seconds less than the first event RECORDER IN point.
- If edit data is not recorded on the tape, the tape is rewound to the beginning and the time code display reads "00:00:00:00".

Basic Editing Operation

You can perform the different kinds of editing operation, including the manual, A/B roll, sync-roll editing and the edit using the Edit keys with this controller. The procedures for basic editing are described below. Follow them when making edits.

1. Editing Operation Selection



Press the ASSEM key to record the video and audio signals. The corresponding lamp will light up.

Press any of the keys desired in the insert editing mode.

Press the key again to cancel the mode selected.

■ Assemble editing

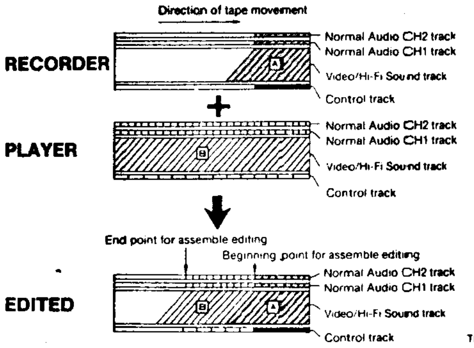
"Assemble editing" permits the user to add program material to the end of a previously recorded portion, thus making one continuous, uninterrupted program from many segments. Video/Hi-Fi Sound (CH1/CH2) and Normal Audio CH1 and CH2 or Time Code are all edited at the same time. As shown in the illustration, suppose that part **A** had been previously recorded. To this, a new program **B** is added. This results in a new program consisting of **A** and **B**.

- Video and Hi-Fi Sound cannot be separated during editing. Hi-Fi sound will be erased with the Video signal.
- **The noise may appear on the IN point with Hi-Fi Sound.**

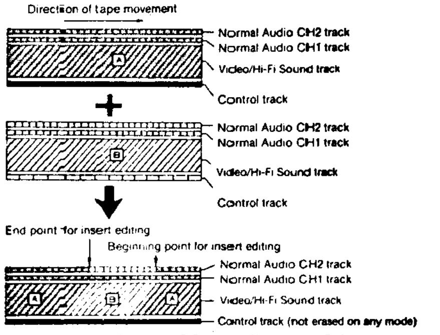
■ Insert editing

"Insert editing" permits the user to add program material somewhere in the middle of a previously recorded portion. As shown in the illustration, the new program material **B** is added between parts of the already-recorded material **A**. The result is a new program consisting of parts **A**, **B**, **A**. For insert editing it is possible to insert only Video/Hi-Fi Sound (CH1/CH2), Normal Audio CH1, Normal Audio CH2 (or Time Code), or any combination of these.

Note:
If the AUDIO CH2 SELECT Switch on a VHS or S-VHS VTR that is used for editing is set to "TIME CODE", the A2 key will allow recording of the TC signal for channel 2.
- The noise may appear on the IN and OUT point with Hi-Fi Sound.



Direction of tape movement
RECORDER
Normal Audio CH2 track
Normal Audio CH1 track
Video/Hi-Fi Sound track
Control track
A
PLAYER
Normal Audio CH2 track
Normal Audio CH1 track
Video/Hi-Fi Sound track
Control track
B
EDITED
End point for assemble editing
Beginning point for assemble editing
Normal Audio CH2 track
Normal Audio CH1 track
Video/Hi-Fi Sound track
Control track
B
A



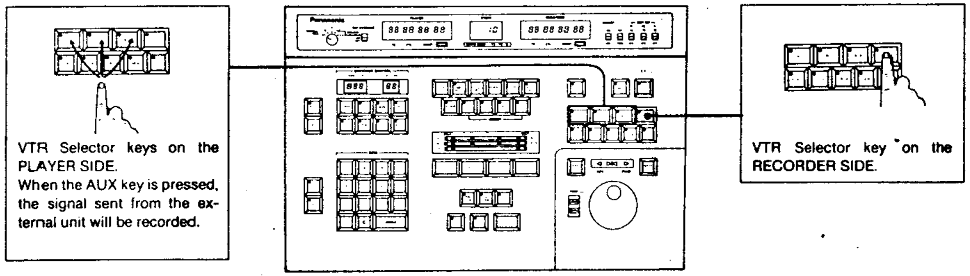
Direction of tape movement
Normal Audio CH2 track
Normal Audio CH1 track
Video/Hi-Fi Sound track
Control track
A
Normal Audio CH2 track
Normal Audio CH1 track
Video/Hi-Fi Sound track
Control track
B
End point for insert editing
Beginning point for insert editing
Normal Audio CH2 track
Normal Audio CH1 track
Video/Hi-Fi Sound track
Control track (not erased on any mode)
A
B
A

The figure shows insert editing for Video/Hi-Fi Sound and Normal Audio CH2

Editing mode button operation
- The insert-editing mode is established when moving from ASSEMBLE to the V A1, A2 or TC buttons.
- The assemble-editing mode is established when moving from V, A1, A2 or TC to the ASSEMBLE button.
- When A1 (V, A2 or TC) is pressed twice during insert-editing, the A1 (V, A2 or TC) lamp goes off, indicating this mode is not selected.
- During insert-editing, insert editing mode (V, A1, A2 and TC) can be changed but the editing mode cannot be changed from insert to assemble (or assemble to insert).
- When the editing mode is not selected, the editing mode lamp will flash to draw attention to the editing mode setting.

2. VTR or External signal selection

The VTRs selected are controlled by this controller.



VTR Selector keys on the PLAYER SIDE.
When the AUX key is pressed, the signal sent from the external unit will be recorded.

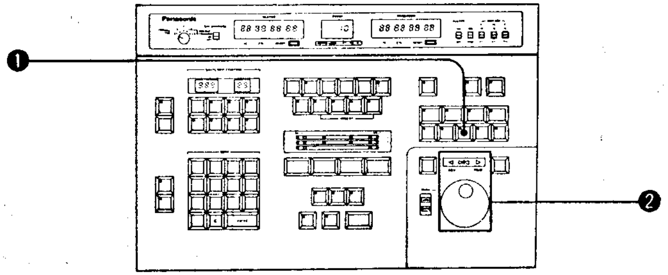
VTR Selector key on the RECORDER SIDE.

3. Entering the Edit Points

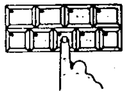
There are three ways of entering the points and these are as follows:

1. Enter the points with the Mark IN and Mark OUT keys after locating them with the search dial.
2. Enter the points with the numeric keys.
3. Enter the points with the + and – keys.

3-1. Entering the Edit Points with the Mark IN and Mark OUT Keys

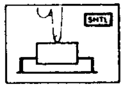


❶ Press the SRCH key.

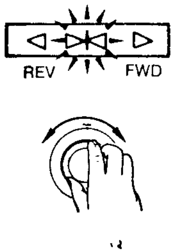


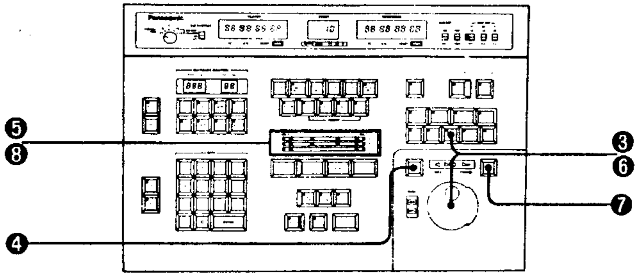
•If the JOG lamp lights up, press the SHUTTLE dial to set the unit to the SHUTTLE mode.

SHUTTLE Mode



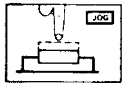
❷ Rotate the search dial to look for the edit point and set the PLAYER to the still playback at the edit point.

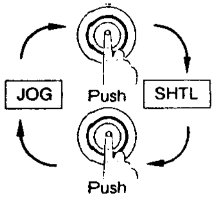




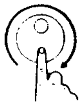
❸ Set the PLAYER to the JOG mode to look for the edit point more accurately.

JOG Mode





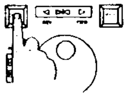
•SHUTTLE and JOG modes can be selected by pushing the dial.
•The tape speed varies with the rotation speed of the dial.



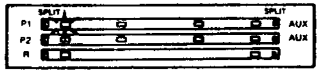
The JOG function switches the tape movement from still to double (2×) the speed when the JOG dial is rotated. When the dial is not rotated, the VTR is always set in still playback.

The tape speed can be increased up to double the speed in JOG mode. It is convenient to use JOG mode when getting close to the edit points and to use the SHUTTLE mode when there is a need to search a great distance of tape.

❹ Stop the rotation of the Search dial at the edit point. Press the Mark IN key.

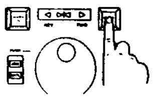


❺ The IN lamp will light up and the current position of the tape on the VTR will be entered as the edit IN point.
EXAMPLE:
When the edit IN point of the PLAYER is entered, the P1 lamp lights up.

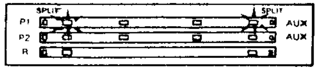


❻ Rotate the Search dial to search for the edit out point. Stop the rotation of the Search dial at the edit out point.

❼ Press the Mark OUT key.



❽ The current position of the tape on the VTR will be entered as the OUT point and the OUT lamp will light up.

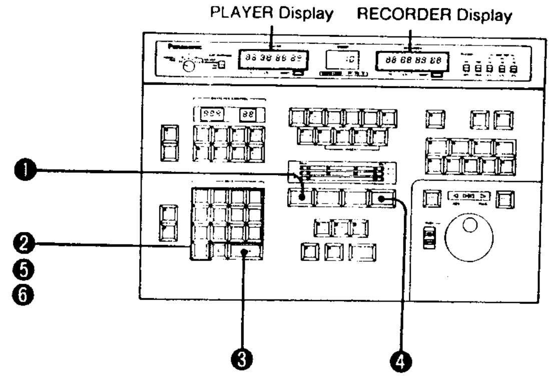


❾ After entering the edit points from the VTR on the player side, return to step "2. VTR or External signal selection" and select the VTR on the recorder side, and then enter the points on this VTR following the procedure indicated in step "3. Entering the Edit Point".
•If the entered edit points are to be altered or changed, replace them with new edit points.

Notes
•If 3 edit points (5 in the A/B roll mode) are entered, the last will be entered automatically by calculation. The lamp will not light up.
•The edit points cannot be entered if there is a mismatch between the IN and OUT points.

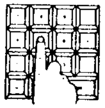
3-2. Entering the Edit Points Using the Numeric Keys

Apart from the search dial, the time code or control signal can also be used to enter the edit points by specifying the signal with the numeric keys.

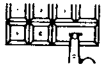


① **Press the IN key.**

② **Enter the value of the TC or CTL signal of the desired edit IN point (Hr: Min: Sec: Frame) using the 10 key Numeric Pad.**

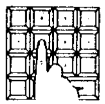


③ **Press the ENTER key to enter the edit IN point.**



④ **Press the OUT key.**

⑤ **Enter the OUT point (Hr: Min: Sec: Frame) using the 10 key Numeric Pad.**



⑥ **Press the Enter key to enter the edit points.**
The OUT point will be entered and the OUT lamp will light up.

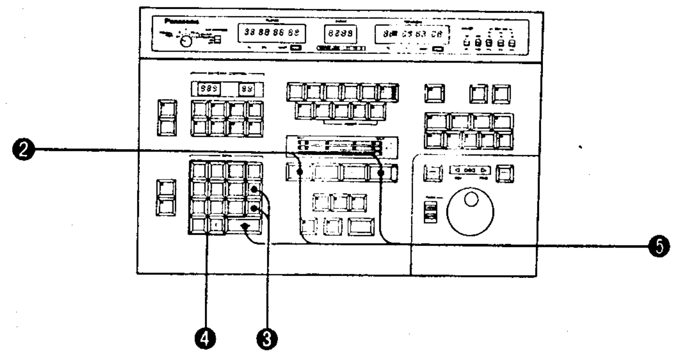
⑦ After entering the edit points on the player VTRs side, return to step "2. VTR or External signal selection" and select the VTR on the recorder side.
Enter the edit points on this VTR by following the procedure in step "3. Entering the Edit Point".
- If the entered edit points are to be altered or changed, replace them with the edit points.

Notes

- To enter the edit points on the A roll side during the A/B roll editing mode, press the A OUT key instead of the OUT key in step ④.
- To enter the edit points on the B roll side, press the B IN key instead of the IN key in step 1. The other procedures are the same as those from step ② to ⑤.

3-3. Entering the Edit Points Using the +/– Keys

These keys are used when entering the edit points by specifying the duration of the editing.
Make sure to enter one of the edit points (IN or OUT) when using the + or – key.

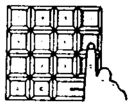


- **When using the + key. Entering the edit IN point and specifying the duration of the editing.**

① Enter the edit IN point using the Mark IN key or numeric keys. Refer to page 21.
The IN point lamp will light up.

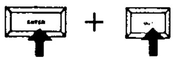
② Press the IN key.

③ **Press the PLUS (+) key.**



④ Enter the duration of the editing (Hr: Min: Sec: Frame) using the 10 key Numeric Pad.

⑤ Press the OUT key while holding down the ENTER key (or press the ENTER key after press the OUT key).

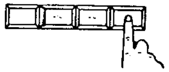


- **For Audio Split Editing**
Refer to page 37.

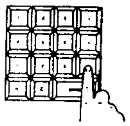
- **When using the – key. Entering the edit OUT point and specifying the duration of the editing.**

① Enter the edit OUT point using the Mark OUT key or numeric keys. Refer to page 21.
The OUT point lamp will light up.

② **Press the OUT key.**

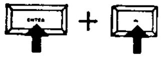


③ **Press the MINUS (–) key.**



④ Enter the duration of the editing (Hr: Min: Sec: Frame) using the 10 key Numeric Pad.

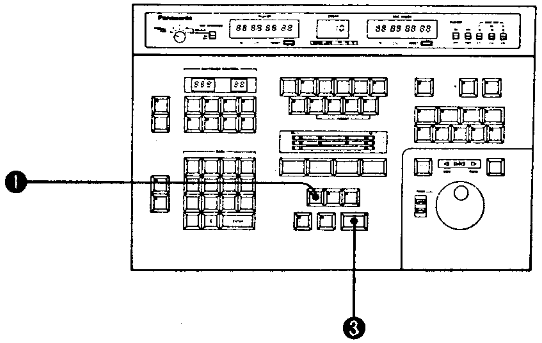
⑤ Press the IN key while holding down the ENTER key.



4. Preview

Preview is the rehearsal of the editing before the actual execution of the edit. The segment you wish to edit is not recorded on the tape.

- Proceed to next step if this operation is unnecessary.



① Press the PREVIEW key.

The PREVIEW lamp will light up and preview will start.

- When preview is executed during the automatic continuity editing mode, press the PREVIEW key while holding down the Auto key in step ①

② When preview has finished, the PREVIEW lamp will go out.

③ Press the EDIT STOP key if you want to stop preview halfway.

Notes

- If the edit out point has not been entered when the EDIT STOP key is pressed, the edit out point will be entered automatically.
- To cancel the preview during the automatic continuity editing mode, press the Edit Stop key twice.

When Performing Preview

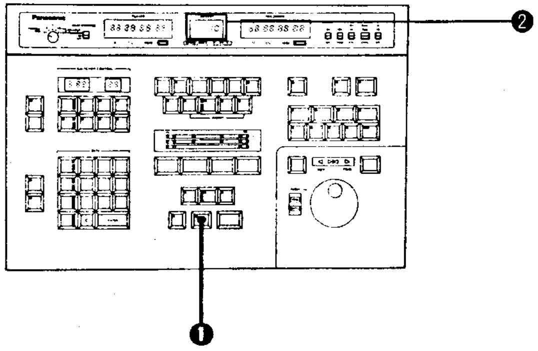
To produce the available effects either the optional AG-SW800 or the AG-RM800 are connected. Then enter the edit points and the data for the effects at the time of executing preview.

Refer to page 40 to produce the effects when the AG-SW800 is connected.

Refer to page 52 to produce the effects when the AG-RM800 is connected.

5. To Start Editing

After preview is completed, start editing the event whose number is shown on the EVENT NO. Display.



① Press the EDIT key.
The EDIT lamp will light up and the edit will start.

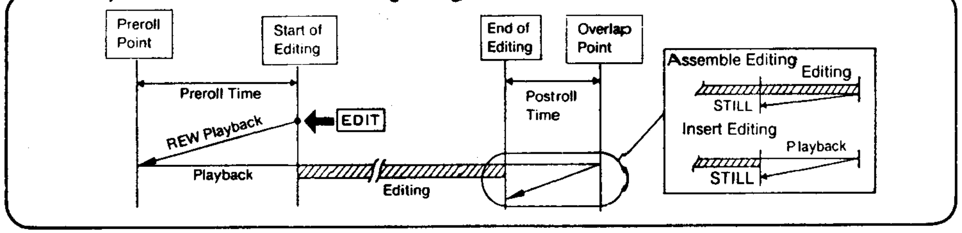
The EDIT lamp will go out once editing of the event has been completed.

● The next event number that has been entered will be displayed at the end of editing.

Notes

- Press the EDIT STOP key to stop the editing halfway. If the edit OUT point has not been entered, the current position of the tape at which the EDIT STOP key is pressed will be entered as the edit OUT point.
  If not desired, press the STOP key.
- The Recorder side IN point of the next EVENT will be automatically entered as the Recorder side OUT point of the EVENT.

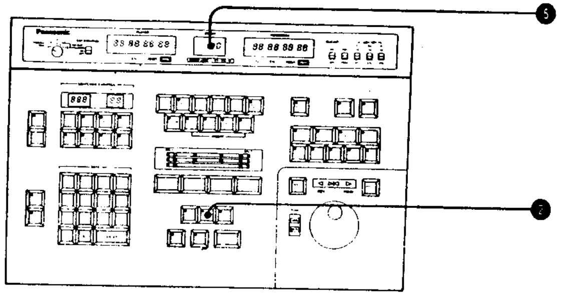
<Operation of the RECORDER during editing>



- The post roll time can be set with the DIP Switches.

6. Review

This function is used to playback after editing.



① Enter the event number to be checked.

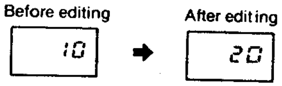
② Press the REVIEW key.

•To check the Automatic continuty editng, press the REVIEW key while holding down the AUTO key.

③ The REVIEW lamp will light up and the REVIEW will start.

④ When the REVIEW is finished, the REVIEW lamp will go out.

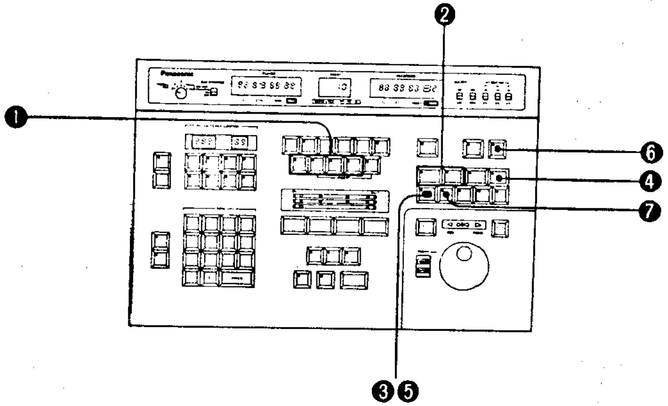
⑤ The event number shown on the display will increase.



•When reviewing the EVENT which has not yet been completely edited, the EVENT preceding the current EVENT will be reviewed. It can not be executed to review an event which has not been edited before.

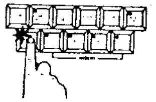
Manual Editing (On-The Fly-Editing)

This procedure allows you to execute and edit manually even when the edit point has not been entered. Note that the edit point will not be registered.

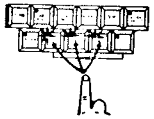


① Set the editing mode.

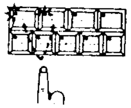
•Assemble editing



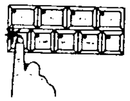
• Insert editing



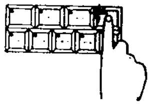
② Select the PLAYER to execute the edit.



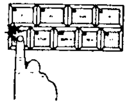
③ Press the PLAY key on the PLAYER to start playback. (Monitor the video playback on the TV)



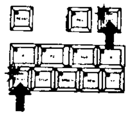
④ Select the RECORDER.



⑤ Press the PLAY key on the RECORDER to start playback. (Monitor the video playback on the TV)

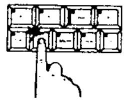


⑥ Press the EDIT key while holding down the PLAY key at the desired position while monitoring the picture.



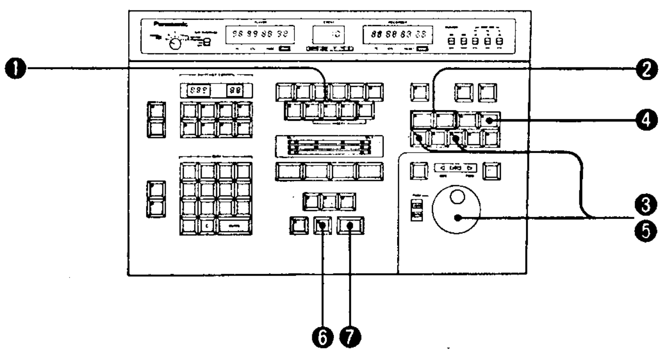
Note .
No edit points are entered.

⑦ Stop the edit by pressing the STOP key at the desired position while monitoring the playback picture.



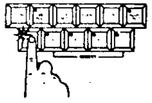
Simple Editing

This unit allows the execution of a manual edit when the edit points have not been entered.
In still playback, on the PLAYER and RECORDER, set the points which will be the IN points. **When the EDIT key is pressed, the current position of the tapes will automatically be entered as the IN points and the editing will start.**
When the EDIT STOP key is pressed, the current positions of the tape will be entered as the **OUT points and the editing will stop.**

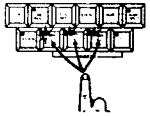


❶ Set the editing mode.

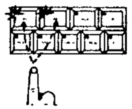
- **Assemble editing**



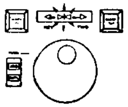
- **Insert editing**



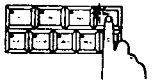
❷ **Select the PLAYER.**



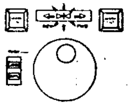
❸ **Start playback on the PLAYER and search for the position at which the editing** will start and **then set the PLAYER to** still playback.



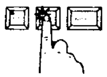
❹ **Select the RECORDER.**



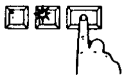
❺ **Start playback on** the RECORDER **and search for the position at which** the editing will **start and then set the** RECORDER **to still** playback.



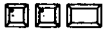
❻ **Press the EDIT key** to start the edit. **The EDIT lamp will light up and the IN points will automatically be entered.**



❼ Stop the edit by pressing the **EDIT STOP key at the** desired point while monitoring **the picture.**
When the EDIT STOP key is pressed, **the OUT points will** be entered automatically.
If not desired, press the STOP key.

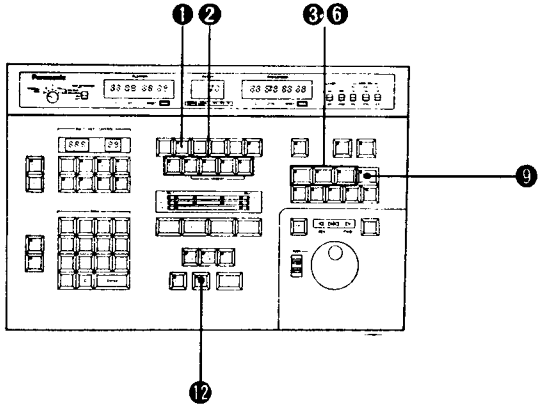


❽ **The EDIT lamp will go out and the edit will stop.**

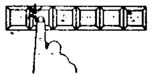


Editing using Two PLAYERs (A/B Roll Editing) — with the switcher

This unit allows the execution of editing with two players, i.e., the ability to perform A/B Roll edits.
Connect **the two PLAYERs and RECORDER** to this unit and **use** the optional **Switcher (AG-SW800). Refer to page 12 for further** details.



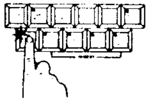
❶ **Press the A/B** ROLL key. The **A/B roll editing mode will be set after the lamp** lights up.



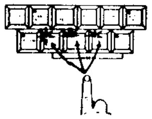
- **To cancel this mode, press the A/B ROLL key again. The lamp will go off.**

❷ Select the editing mode.

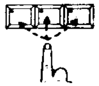
- **Assemble editing**



- **Insert editing**



❸ Select **the VTR on the player side on which the A roll will** be used.

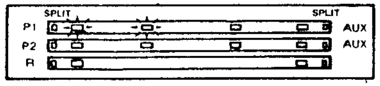


- **The VTR that has been first selected will always be the A roll side.
The VTR for the B roll side cannot be selected until the one for the A roll side has been selected.**

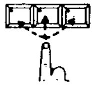
❹ Enter the edit points on **the A roll.**
There are three ways to **enter these points. These are** using the Mark **IN** and OUT, **numerics, or + and – keys.**
Refer to page 21.

❺ The edit point lamps will light up as shown **in the figure** below when the points are entered on the **A roll.**

When the P1 VTR is the A roll side.



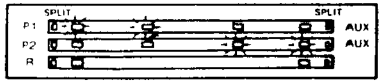
❻ Select another **VTR on the player side that will be the B roll side and press the keys.**



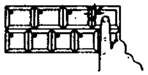
❼ **Enter the edit points on the** B roll.
**There are three ways to enter the edit points. These are using the Mark IN and OUT, numerics, or + and – keys.
Refer to page 21.**

❽ The edit point lamps will light up as shown **in the figure** below when the points are entered **on the** B roll.

When the P2 VTR is the B roll side.

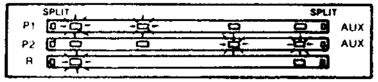


⑨ **Press the R key.**



⑩ Enter the edit points on the recorder VTR side.
It is only necessary enter one of the points, IN or **OUT, as the** other will be automatically calculated.
- There are three ways to enter the points. These **are using** the Mark IN and OUT, numerics, or + and − keys. **Refer** to page 21.

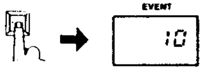
⑪ After the points have been entered, the edit point lamps will light up as shown in the figure below.


SPLIT
SPLIT
P1
P2
R
AUX
AUX

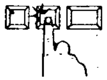
- For the Audio Split Editing Refer to page 37.
- For the Special Effect Editing Refer to pages 40 to 49.

⑫ Starting the editing.

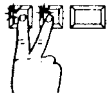
When making an edit with a cut.
Set the event on which will start the edit.



Press the Edit key.
The edit lamp will light up and edit will start.

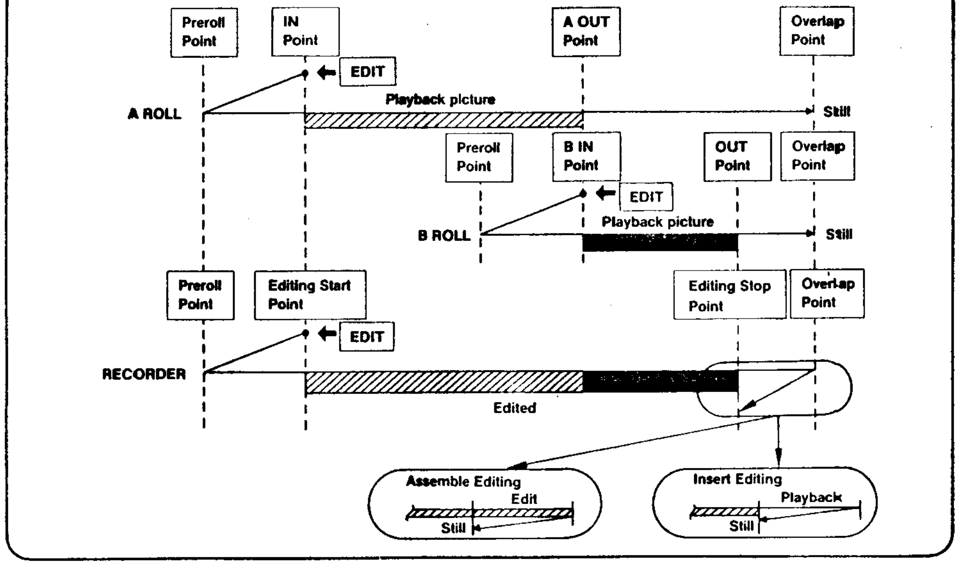


When the automatic continuity editing is executed.
Press the EDIT key while holding down the AUTO key.
The AUTO and EDIT lamps will light up and the edit with plural cuts will be made. Refer to page 34.



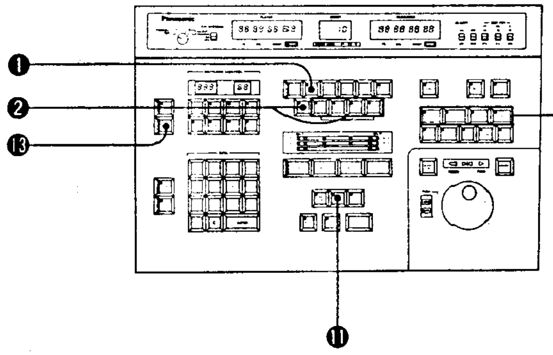
- To stop the editing operation in **progress, press the EDIT** STOP key.
- To stop the automatic continuity **editing operation in progress, press the** EDIT STOP key twice.
- If the OUT point has not **been entered, it will be entered on the section of the tape when you press the EDIT STOP key.** Press the STOP key if not desired.

<A/B Roll Editing Operation>


Preroll Point
IN Point
EDIT
A OUT Point
Overlap Point
Playback picture
A ROLL
Still
Preroll Point
B IN Point
OUT Point
Overlap Point
EDIT
Playback picture
B ROLL
Still
Preroll Point
Editing Start Point
Editing Stop Point
Overlap Point
EDIT
RECORDER
Edited
Assemble Editing
Edit
Still
Insert Editing
Playback
Still

Manual TAKE Editing (SYNC ROLL) — with the Switcher

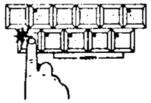
This mode is used to operate the switcher manually after starting two VTRs simultaneously and making an edit on the recorder VTR side. Refer to page 12 for information on the connections.

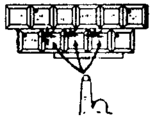


① **Press the A/B ROLL key.**
The A/B roll editing mode will be set after the lamp lights up.

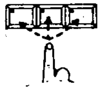
- To cancel this mode, press the A/B ROLL key again. The lamp will go off.

② Select the editing mode.
- **Assemble editing**
- **Insert editing**





③ **Select the VTR on the player side that will be the A roll side and press the key.**

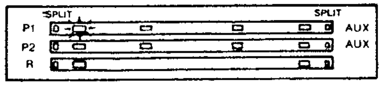


- The VTR on the player side that **has first been selected** will be the A roll side and remember that the VTR for the B roll side cannot be selected until the A roll side has been selected.

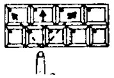
④ Enter the edit IN point on the A roll.
There are two ways of entering this point, i.e., with the Mark IN and the numeric keys. **Refer to page 21.**

⑤ **The edit IN point lamp will light up after the point is** entered on the A roll.

If the A roll side is the P1 VTR.


SPLIT
SPLIT
P1
P2
R
AUX
AUX

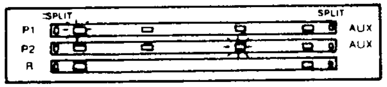
⑥ **Select another player that will be the B roll side.**



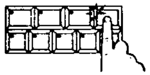
⑦ **Enter the edit IN point on the B roll.**
There are two ways of entering the IN point, i.e., with the Mark IN and the numeric keys. Refer to page 21.

⑧ **The edit IN point lamp will light up as shown in the figure below after the point has been entered on the B roll.**

If the B roll side is the P2 VTR.


SPLIT
SPLIT
P1
P2
R
AUX
AUX

⑨ Press the R key.



⑩ Enter the edit points on the recorder VTR side.
It is not necessary to enter the edit IN and OUT points on the recorder VTR side.
- If the IN point has not been entered, the tape position where the Edit key is pressed will be entered as the IN point.
- If the OUT point has not been entered, the tape position where the EDIT STOP key is pressed will be entered as the OUT point.
Press the STOP key if not desired.

⑪ Press the Edit key.

⑫ The edit lamp will light up and edit will start.

⑬ Use the switcher to switch from the A roll VTR to the B roll VTR. Refer to page 51.
- To stop the edit in progress, press the Edit Stop key. (Press the STOP key if not entering the OUT point.)

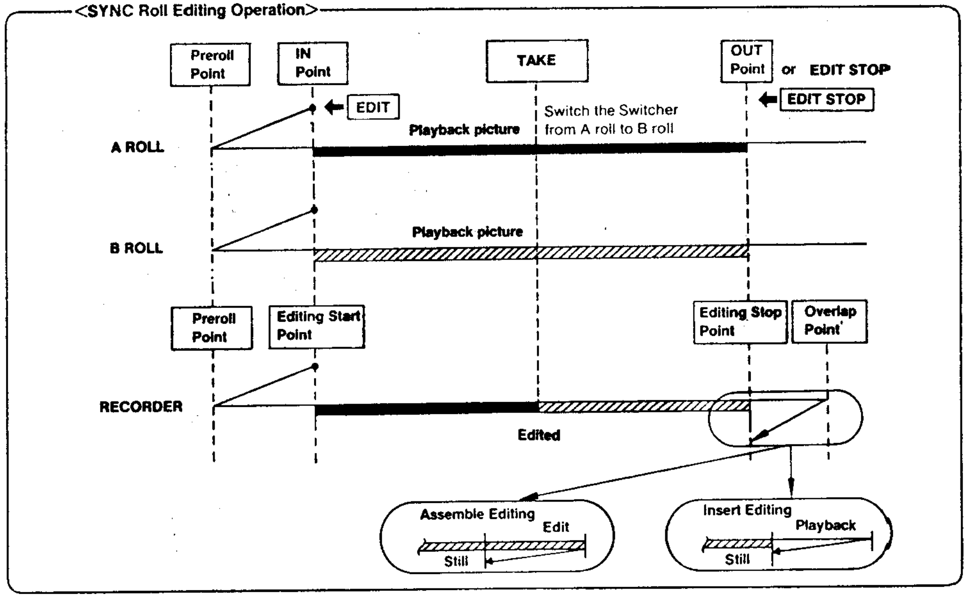
How to Operate the Switcher

(1) Using the Take key on the controller. Refer to page 51.
- The Take key can only be used when the AG-SW800 is connected.
- The key can only be operated once for each event and the switcher cannot be switched again with the TAKE key even if this key is pressed several times.

(2) Using the AG-SW800. Refer to the Operating Instructions of this switcher.

(3) Using the AG-RM800. Refer to page 52.
You can use this switcher with the AG-RM800 fader if the AG-RM800 is connected to the AG-SW800.

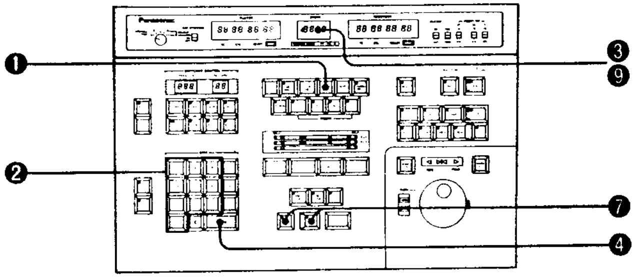
<SYNC Roll Editing Operation>


Preroll Point
IN Point
EDIT
TAKE
Switch the Switcher from A roll to B roll
OUT Point
or EDIT STOP
EDIT STOP
A ROLL
Playback picture
B ROLL
Playback picture
Preroll Point
Editing Start Point
Editing Stop Point
Overlap Point
RECORDER
Edited
Assemble Editing
Edit
Still
Insert Editing
Playback
Still

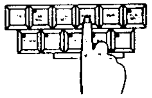
Note
Since the A/B point is entered automatically when the TAKE key is pressed in the AUTO ON mode (see page 51), A/B roll editing is conducted when the Edit key is pressed again. When attempting sync-roll editing any number of times, proceed from the start in the AUTO OFF mode. (However, the A/B point will not be entered on EDL.)

Automatic Continuity Editing

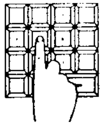
You can perform continuity editing of plural events automatically in accordance with the edit data you have entered beforehand on this equipment. Up to 128 individual data items can be entered, the maximum number of edit times will depend on the data for A/B, audio split and/or effect editing.



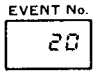
❶ Press the EVENT key.



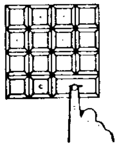
❷ Type the event number using the 10 key Numeric Pad.



❸ The event number typed with the 10 key Numeric Pad will be displayed.



❹ Press the ENTER key.



Note
When the unit is turned on, event number "10" is shown on the display.

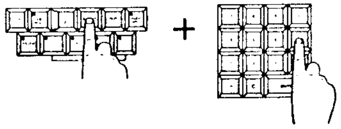
❺ Enter the edit data.
Enter the data, including the data for basic, A/B roll, audio split editing and effect editing.

❻ Enter the edit data for the events to be edited automatically and continuously by following the procedure above.

Note
The Recorder side IN point of the next EVENT will be automatically entered as the Recorder side OUT point of the previous EVENT.

•Apart from steps ❶~❹, there are other methods to specify the number of events as shown below.

(1) Press the + key while holding down the Event key.
Make sure that the current edit data has been entered.

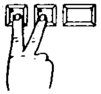


(2) After pressing these keys, multiples of ten will be displayed in progression. If the current event number is, say 15, the number which will be displayed will be 20. If it is 31, the multiple of ten will be 40.

EVENT
15
EVENT
20

Notes
- If the edit points for the event have not been entered, the event number can not be specified with the + key.
- The usable event numbers are 1 to 9899.

7. Press the Edit key while holding down the Auto key.



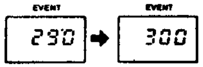
- Automatic continuity editing cannot be performed if all the necessary edit points are not entered correctly.

8. The Auto and Edit lamps will light up and the automatic continuity editing will start.

Note

- **If the edit data list is changed after entering the data, be sure to modify the edit data list (Refer to page 64).**

9. **After the edit, the event numbers will be increased.**



10. The Auto and Edit lamps will go off after the last edit.

To stop the execution of an automatic continuity editing progress.

- To stop the automatic continuity editing after editing the event whose number is displayed, press the Edit Stop key once.
- To stop it immediately, press the Edit Stop key twice.

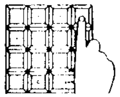
Specifying the Range of the Edit

Automatic continuity editing of events can be performed with multiple cuts within a specified range. For example, if the edit data for the execution of 20 cuts within event numbers 10 to 200 have been entered, you will be able to edit within event numbers 100 to 150 automatically and continuously.
Follow the procedure below after step 6.

(1) Press the Event key.

(2) Input the desired event number with the numeric keys from which the editing will start.
(If you not input this event number, it will be automaticaly entered as the minimum event number.)

(3) Press the automatic continuity Edit key (~).



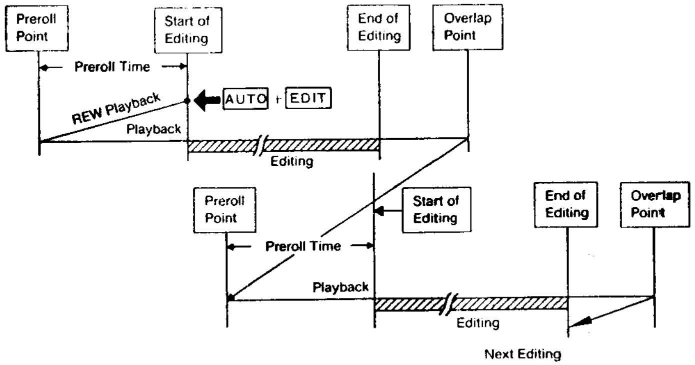
(4) Input the number of the last event to be edited on the numeric keyboard.
(If this last event number is not entered, it will be automatically entered as the maximum event number.)

(5) Press the Enter key.

(6) Press the Edit key while holding down the Auto key.
The automatic continuity editing will be performed within the range specified.

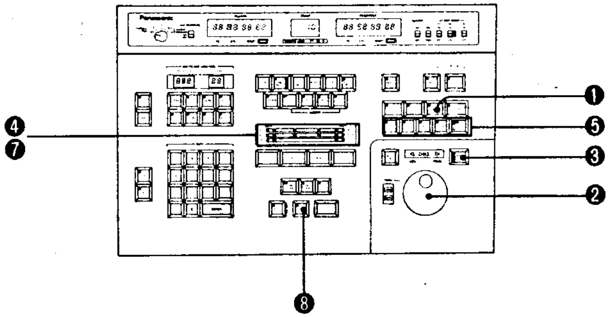
- Refer to page 60 and 62 to check or cancel the range of automatic continuity editing.
- If the data has been deleted for the editing of all the events, the range will also be deleted.

<Operation of the RECORDER during continuous automatic editing>

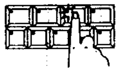


- The post roll time can be set with the DIP switches.

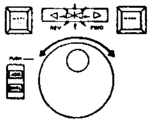
Editing Signals from an External Unit (AUX) — with the switcher



1. **Press the AUX key.**

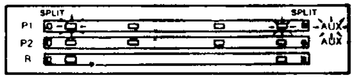


2. Enter the OUT point using the Search Dial.

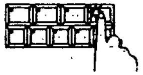


3. **Press the Mark OUT key.**

4. The IN and OUT lamps on the external unit (AUX) and AUX lamp will light up.

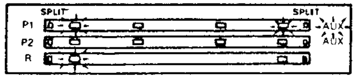


5. **Press the R key.**



6. Enter the edit points on the recorder VTR side.
Only enter one edit point (IN or OUT) on the recorder VTR side. The other will be calculated automatically.
There are three ways to enter the points: with the Mark IN and OUT, numerics, or + and – keys. Refer to page 21.

7. **The edit point lamps will light up as shown in the figure below after the edit points have been entered.**



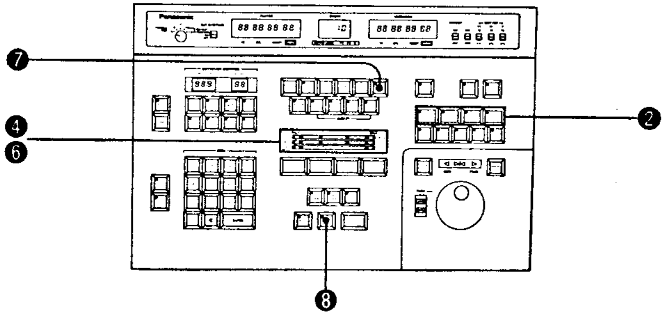
8. Press the Edit key to edit the signal from the external equipment.

Notes

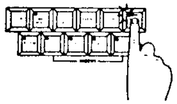
- **The numeric keys can also be used to set the points on the auxiliary equipment.**
- The IN point of the tape on **the auxiliary equipment (external side)** is always "00:00:00:00".
- Only enter the IN point on **the auxiliary equipment after you have entered the IN and OUT edit points on the recorder VTR side.**
- For the **AUX lamp, refer to page 58.**

Audio Split Editing

The Audio split edit is one in which the Video and Audio material have different entry or exit points in the same edit.

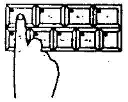


① Set the audio split editing mode by pressing the AUDIO SPLIT key. The corresponding lamp will light up.



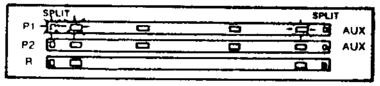
- To cancel this mode, press this key again. The lamp will go out.

② Press the P1, P2 or R key.



③ Enter the audio split edit IN points. There are two ways to enter the edit points: with the Mark IN or the numeric keys (refer to page 21).

④ The AUDIO IN point will be entered after the key is pressed. The SPLIT lamp will light up on the PLAYER or RECORDER.



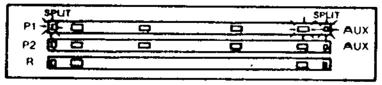
- When the A/B roll editing is in the Insert mode.
  Enter the A/B point which is the out point of the A roll or the IN point of the B roll.

Notes

- Enter the audio points on the PLAYER or RECORDER after all the edit points for video have been entered.
- Entry of the Audio IN (or OUT) point on the RECORDER side cannot be available if Audio IN (or OUT) point has been entered on the PLAYER side.
- Only enter the IN and OUT points. The video and audio signals will be edited at the same edit points that have not been entered simultaneously.
- Refer to page 58, 59.

⑤ Enter the audio split edit OUT point. This point can be entered with the Mark OUT, the numeric keys or + and − keys (refer to page 21).

⑥ The SPLIT lamp on the selected VTR on the player or recorder side will light up and the audio split OUT point will be entered. Now this point has been entered.



- With A/B roll mode, enter the effect data, refer to page 50.

⑦ Exit the audio split entry mode with the AUDIO SPLIT key. The Split lamp will go off and the normal edit point entry mode will be set.

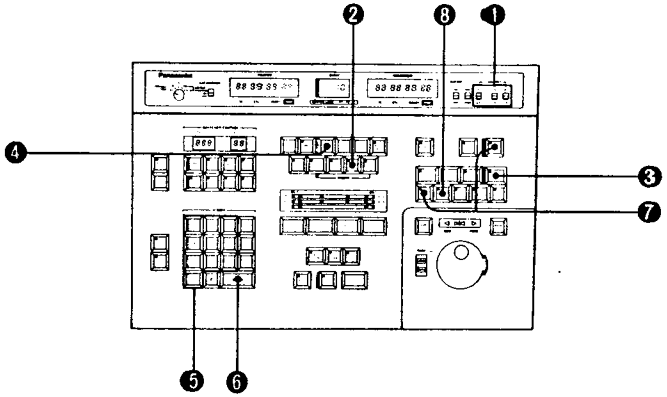
⑧ Start the audio split editing with the Edit key.

Refer to the table below for information on how to enter the audio split points during normal or A/B roll editing.

Normal editing	Insert mode	Enter the following two points: one of the IN points of the players 1 and 2 and recorder, one of the OUT points of the players 1 and 2 and recorder.
	Assembly mode	Audio split editing can not be performed.
A/B roll editing	Insert mode	Enter the following two points: one of the IN points of the A roll and recorder, one of the OUT points of the B roll and recorder, and the OUT point of the A roll or IN point of the B roll.
	Assembly mode	Only enter the OUT point of the A roll or the IN point of the B roll.

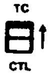
Time Code Signal — (TCG-set and insert)

The time code generator and reader are built on an optional 34-Pin Interface Board. The time code signal with 9P I/F board will perform the input and output of the regenerated signal through the 9-Pin cable. The unit can execute editing by recording the time code signal recorded on the RECORDER tape.

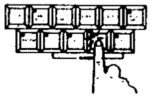


Time code generator setting

① Set the EDIT REF Selector Switch to the "TC" position.



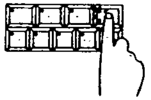
② Press the A2 (Audio CH2) or TC key. The lamp will light up.



Note

- The button to be pressed in step ② differs depending on the type of VTR used. For S-VHS or VHS, press the A2 key. For MII Series models, press the TC key.

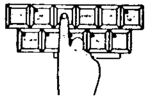
③ Press the R key.



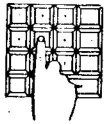
Note

- If you use 9 Pin interface board, there will be a VTR that cannot set the time code.

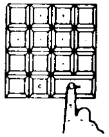
④ Press the TCG SET key.



⑤ Input the value of the time code signal.

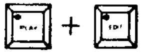


⑥ Press the ENTER key.

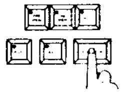


- Step ① to ⑤ are for the TCG set.

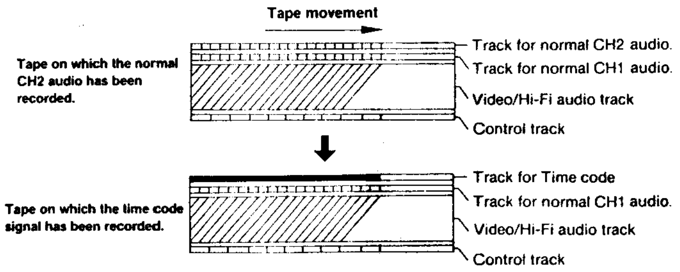
⑦ Press the PLAY key and the EDIT key at the same time. The time code signal will be recorded on the RECORDER tape.



⑧ Press the **STOP** key once the time code signal has been recorded.



Note:
When time code editing is executed on S-VHS or VHS tapes, the normal CH2 audio signal can not be recorded because the time code (TC) signal will be recorded on the track for the normal audio of CH2.

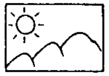

Tape movement
Tape on which the normal CH2 audio has been recorded.
Track for normal CH2 audio.
Track for normal CH1 audio.
Video/Hi-Fi audio track
Control track
Tape on which the time code signal has been recorded.
Track for Time code
Track for normal CH1 audio.
Video/Hi-Fi audio track
Control track

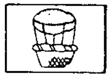
Notes
- The time code will jam to the current time code on the recorded tape in the normal edit.
- If there is a necessity to record a purpose time code, use the above method.
  Refer to page 19 (Initial Editing).

Special Effects when the AG-SW800 is Connected

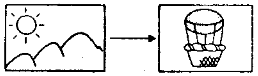
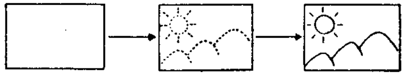
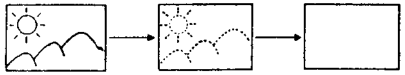
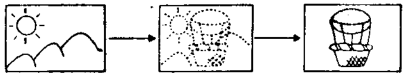
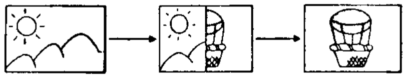
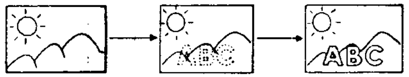
Editing using the special effects described below can be done when the Audio/Video Switcher AG-SW800 is connected to the controller AG-A800.
- Only one special effect can be produced for each event.

INPUT VIDEO PICTURE


Input on the bus A


Input on the bus B

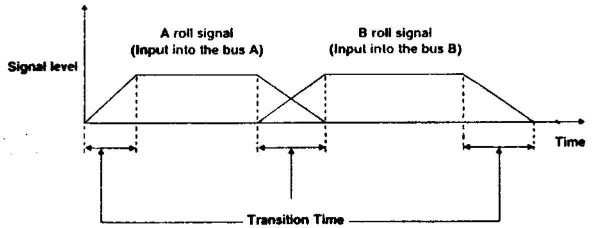
KEY input

Modes Using Special Effects When the AG-SW800 is Connected	Special Video Effects
1. Cut Mode Effect used for instantaneous switches from video pictures to others.	**Instantaneous switch from the bus A video picture to the bus B video picture.** 
2. Fade In Mode The video picture gradually fade in from a black or white screen.	**The bus A video picture gradually fades in.** 
3. Fade Out Mode The video picture gradually fade out a black or white picture.	**The bus A video picture gradually fades out.** 
4. Dissolve Mode Effect produced by fading out a video picture while fading in another.	**The bus A video picture fades out and the bus B video picture fades in.** 
5. Wipe Mode Parts of different video pictures are blended in wipe patterns.	**Vertical wipe/line-split pattern of the bus A video picture into the bus B video picture.** 
6. Down Stream Keyer Used to superimpose characters or patterns (foreground) onto other video pictures (background).	**Superimposing the key video picture onto the bus A video picture.** 

- The Key input signal is the video signal generated by the external character generator or the B/W video camera.

Transition Time

This Editing Controller can be used to set the duration time of the special effects from their beginning until their completion. This is called the transition time and is set in frame units (1 frame equals 1/25 seconds) up to 999 frames or 40 seconds.


Signal level
A roll signal (Input into the bus A)
B roll signal (Input into the bus B)
Time
Transition Time

Note
If frame 0 is set as the transition time, the cut effect is produced.

Wipe Patterns

You can select 16 different wipe patterns by entering the corresponding pattern number on this Editing Controller. The eight normal wipe patterns have corresponding reverse patterns (see table below) and the picture replace the black areas to white areas in the table below.

Pattern No.	Direction	Pattern name		Pattern No.	Direction	Pattern name	
1	Normal	Vertical wipe	◨	51	Reverse	Vertical wipe	◧
2	Normal	Horizontal wipe	⬓	52	Reverse	Horizontal wipe	⬒
3	Normal	Vertical split wipe	◫	53	Reverse	Vertical split wipe	◫
4	Normal	Horizontal split wipe	⊟	54	Reverse	Horizontal split wipe	⊟
5	Normal	Left corner wipe	◪	55	Reverse	Left corner wipe	◰
6	Normal	Right corner wipe	◩	56	Reverse	Right corner wipe	◳
7	Normal	Diagonal wipe	◪	57	Reverse	Diagonal wipe	◩
8	Normal	Circle wipe	◘	58	Reverse	Circle wipe	◙

Fade IN/OUT

When the Dissolve fade mode has been selected, the special effects with black or white signal can be provided for fade IN or OUT. This can be specified by a dissolve number from the editing controller.

Effect Point / Pattern No.	P IN	P OUT
0	Fading in from a black screen	Fading out into a black screen
1	Fading in from a white screen	Fading out into a white screen

Note
•The AG-A800 does not contain the Fade key, therefore use the Dissolve key.

Basic Operation when the AG-SW800 is Connected

Preparation

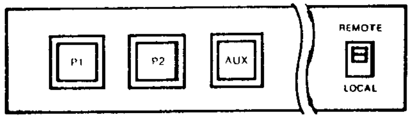
(1) Make the connections in the system.

(2) Turn on the switcher.

(3) Turn on the editing controller.
The power indicator on the editing controller will light up.

(4) Make the necessary adjustments in the system. Refer to the Operating Instructions of the AG-SW800 and TBC.

(5) Set the control switch on the AG-SW800 to the "REMOTE" position. The P1, P2 and AUX lamps will go off.



Editing Operation

You can make edits using special effects, including A/B roll editing with 2 VTRs and sync-roll editing when the AG-SW800 is connected.

1) Basic Editing in the A/B roll

The flow chart of the basic editing operation using special effects in the A/B roll editing mode is as follows:

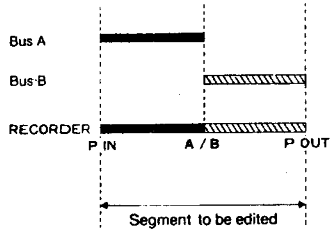
Enter the necessary edit points for the A/B roll editing.
•Make the edit with special effects after entering the edit point. .... Refer to page 30.

Select the effect points (see below).

Select the P IN, A/B or P OUT point.

Only one special effect can be produced for each point.

•Explanation of the Effect Points



P IN:	The point from which the edit will start.
A/B:	The point where the bus switches from the A to the B roll.
P OUT:	The point where the edit ends.

Select the kind of the special effect you want to produce.
DIS key: To produce the fade-in effect at the P IN point and fade-out effect at the P OUT point and produce the dissolve effect from the A roll into the B roll. .... Refer to page 46.
WIPE key: To produce the wipe effect from the A roll into the B roll. This effect cannot be executed at the P IN or P OUT point. .... Refer to page 47.

Select the pattern of the special effect.
DIS key: Two patterns can be selected: the effect produced from a black screen (0) or white screen (1). This effect can not be produced from the A roll to the B roll. .... Refer to page 41, 46.
WIPE key: Sixteen patterns can be selected. Patterns 1~8 (normal) and 51~58 (reverse). .... Refer to page 41, 47.
Select the pattern as desired by typing the pattern number on the numeric keyboard and then press the Enter key.

Set the transition time.
Press the TRAN key to set the transition time (0~999) with the numeric keyboard and then press the Enter key.

Repeat from first step and enter all points of P IN, A/B and P OUT.

The setting is finished.

The editing operation starts.

Special effects are produced automatically during edits.

•Refer to page 48 if you wish to produce the Down Stream keyer effect.
•Refer to page 50 if you wish to produce the special audio effect.

2) SYNC Roll Editing

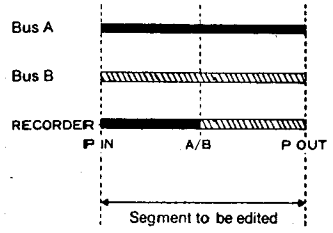
The flow chart of basic editing using special effects in the sync-roll editing mode is as follows:

Enter the edit points to execute sync-roll editing.
•Make the edit using special effects only after entering the edit points. .... Refer to page 20, 32.

Select the points in which the effects will be produced (see below).

Select P IN or A/B.
•Special effects cannot be selected at the P OUT point during sync-roll editing.

Explanation of the Effect Points



P IN: The start point of the editing.
A/B: The bus will switch from the A roll to the B roll manually with the TAKE key.
P OUT: The point set when the Edit Stop key is pressed.

Select the kind of special effect.
DIS key: Produces the fade in effect at the P IN point and the dissolve effect from the A roll to the B roll. .... Refer to page 46.
WIPE key: Produces the wipe effect from the A roll to the B roll. It cannot be produced at the P IN point. .... Refer to page 47.

Select the pattern of the special effect.
DIS key: Two patterns can be selected: the effect produced from a black screen (0) or white screen (1). This effect cannot be produced from the A roll to the B roll. .... Refer to page 41, 46.
WIPE key: Sixteen patterns can be selected. Patterns 1~8 (normal) and 51~58 (reverse). .... Refer to page 41, 47.

Select the pattern as desired by typing the pattern number on the numeric keyboard and then press the Enter key.

Set the transition time.
Press the TRAN key to set the transition time (0~999) with the numeric keyboard. Then press the Enter key.

Repeat from first step and enter both points of P IN and A/B

The setting is finished.

Set the automatic mode with the Auto key.
AUTO ON: The Take key can be used to switch the switcher. The edit point will be set when the Take key is pressed.
AUTO OFF: The switcher can be switched using the Take key. The edit points cannot be entered.

.... Refer to page 51.

The editing starts.

The editing will start from the bus A. If the fade-in effect has been selected for the P IN point, the effect will be produced on the bus A.

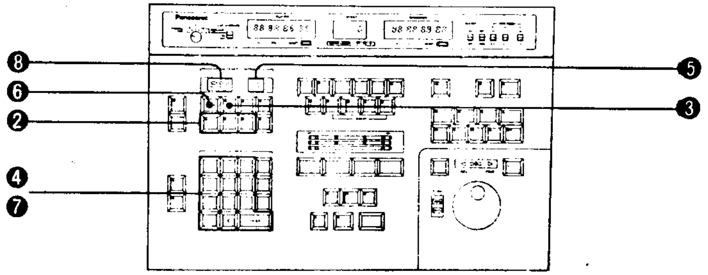
Press the Take key on the AG-A800 at the desired point.
If the special effect has been selected for the A/B point, the effect will be produced from bus A to bus B.

Press the Edit Stop key to stop the editing.
The editing operation will stop and the OUT point will be entered.

- Refer to page 48 if you wish to produce the Down Stream keyer effect.
- Refer to page 50 if you wish to produce the special audio effect.

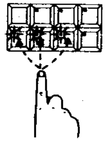
Using the Dissolve Effect (DIS) — with the Switcher

The dissolve at P IN point will be the fade-in effect from the black or white video picture.
The dissolve at P OUT point will be the fade-out effect into the black or white video picture.
The dissolve at A/B point will be the dissolve effect from the A roll video picture into the B roll video picture.

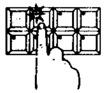


① Enter all the edit points
Refer to page 20, 30, 32 for the procedure of entering edit points.

② Select the desired points in which you wish to produce the special effects.

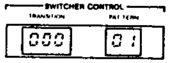


③ Press the DIS key.

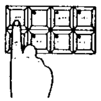


④ Type the number of the desired dissolve pattern on the numeric keyboard for the P IN and P OUT points.
0: Fading in from a black screen (fading out into a black screen).
1: Fading in from a white screen (fading out into a white screen).
- A dissolve pattern does not have to be set if the A/B key has been selected in step ②.

⑤ Press the Enter key.
The selected dissolve pattern will appear on the pattern display.

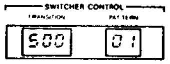


⑥ Press the TRAN key.



⑦ Input the transition time using the numeric keyboard.
- The transition time is set in frame units from 0 to 999 (1 frame=1/25 seconds).

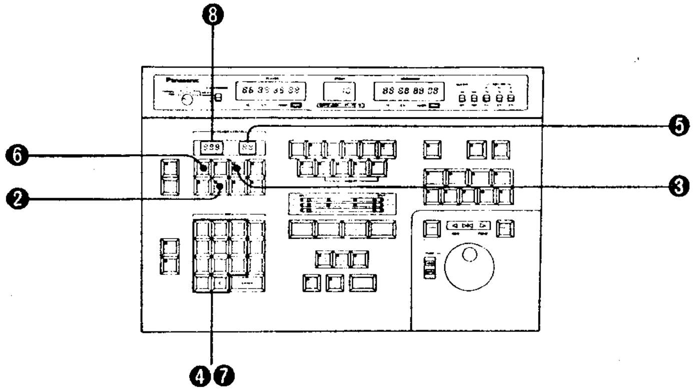
⑧ Press the Enter key.
The transition time will appear on the pattern display.
The dissolve effect is produced.



Notes
- If you wish to choose another pattern or modify the transition time, input the desired pattern number or transition time by pressing the DIS or TRAN key and then press the Enter key.
- If frame 0 is set as the transition time, the cut effect will be produced.

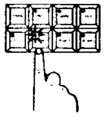
Using the Wipe Effect — with the Switcher

The wipe effect can only be produced at A/B point.

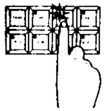


1. Enter all the edit points.
   Refer to the edit point entry procedure on page 20, 30, 32.

2. Press the A/B key.

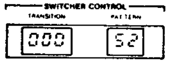


3. Press the Wipe key.

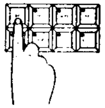


4. Type the number of the wipe pattern you desire on the numeric keyboard. Refer to page 41.

5. Press the Enter key. The pattern number will appear on the pattern display.

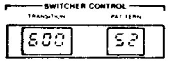


6. Press the TRAN key.



7. Set the transition time using the numeric keyboard.
   The transition time is set in frame units from 0 to 999 (1 freme=1/25 seconds).

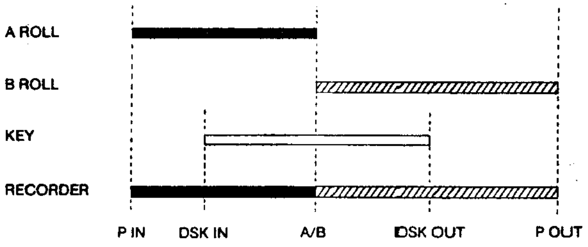
8. Press the Enter key.
   The transition time will appear on the display.



Notes
- If you wish to choose another pattern or modify the transition time, input the desired pattern number or transition time by pressing the WIPE or TRAN key and then press the Enter key.
- If frame 0 is set as the transition time, the cut effect will be produced.

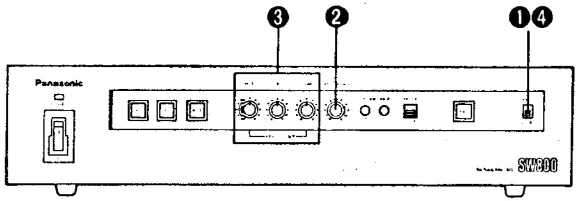
Setting the Down Stream Keyer Effect (DSK) — with the Switcher

The down stream keyer function allows you to adjust the chrominance of the characters generated by the character generator or the B/W video pictures from the video camera and then superimpose them on the editing segment.
To use this function, set the IN and OUT points and then produce the effect at these points.



1) Adjusting the Down Stream Keyer

You can adjust the hues of the chracters generated by the character generator or the luminace of the video picture from the video camera.



1. Set the control switch to LOCAL.

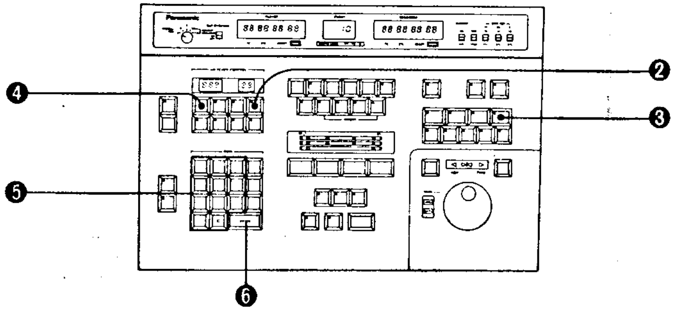
REMOTE
LOCAL

2. Adjust the video pictures with the KEY Input Level control.
   Adjust the control so that the Key Input video signals (characters or pictures) will be displayed on the monitor. When rotated clockwise from its centre click-stop position, the white areas are inserted; when rotated counterclockwise, the black areas are inserted.

3. Adjust the chrominance and brightness with the colour control.
   HUE: To adjust the hue.
   SAT: To adjust the colour saturation. If the control is turned clockwise, the saturation of the hues in the colour picture can be changed.
   LUM: To adjust the brightness of the video picture. If the control is turned clockwise, the video picture will brighten.

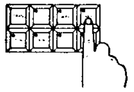
4. Set the control switch to "REMOTE".
   The above procedures can be performed on the AG-R M800 if it is connected.

2) Entering the Down Stream Keyer Edit Points



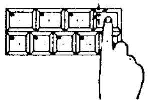
❶ Enter all the edit points.
Refer to page 20, 30 for the procedure of entering edit point.

❷ Press the KEY key.
The lamp will light up after this key is pressed.



❸ Enter the down stream keyer IN point where the effect will start and the OUT point where it will end.

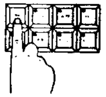
(1) Select the VTR on the recorder side.



(2) Enter the down stream keyer IN and OUT points. Enter the edit points using the numeric keys.

- •The down stream keyer IN and OUT points cannot be entered as the edit points on the player VTR side. If you wish to enter these points while monitoring the video picture on the player VTR side, connect the AG-RM800 and set the effect memory function or use the MARK IN/OUT keys after the KEY key is pressed (KEY lamp light up) during the preview.
- •Enter the down stream keyer IN and OUT points on the editing segment.

❹ Press the TRAN key.



❺ Set the transition time using the numeric keys.
- •The transition times for the fade-in and fade-out effects are the same.

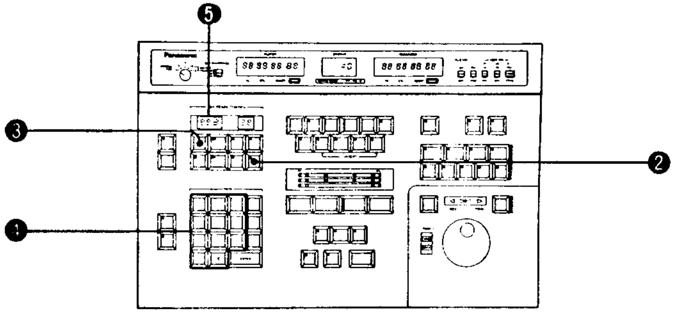
❻ Press the Enter key.
The transition time will be displayed.
- •Steps ❹ to ❻ are unnecessary if the down stream keyer effect is executed with cuts.

Note
The following keys function as explained below are available while the KEY lamps are lit.

Key	FUNCTION
DUR	Displays the duration between the DSK IN and OUT points.
IN	Displays the DSK IN point on the display of the player VTR side.
OUT	Displays the DSK OUT point on the display of the player VTR side.
GOTO+IN	Cues up to the DSK IN point.
GOTO+OUT	Cues up to the DSK OUT point.
MARK IN	Enters the DSK IN point.
MARK OUT	Enters the DSK OUT point.

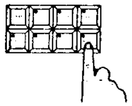
Producing the Special Audio Effect — with the Switcher

The editing controller AG-A800 allows you to produce the special audio effect independently from the video effects. The audio edit points are entered in the same way as the video points, but dissolve is the only possible audio effect.
The IN and OUT points will follow the fade of VIDEO effect.

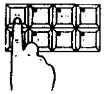


❶ Enter all the edit points.
Refer to the edit point entry procedure on page 20, 30.

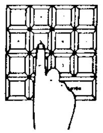
❷ Press the AUDIO key.
The AUDIO and A/B lamps will light up.



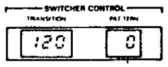
❸ Press the TRAN key.



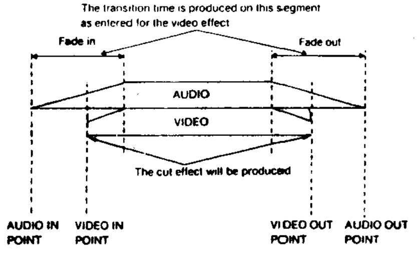
❹ Set the transition time with the numeric keys.
Set the transition time in frame units (0~999).

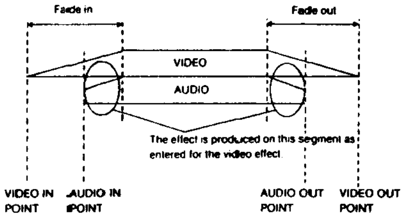


❺ Press the Enter key.
The transition time will be displayed.


SWITCHER CONTROL
TRANSITION
PATTERN
120
0

Notes
- •Noises may occur if the transition time is shorter than 3 frames.
- •To enter the video effect, press the Audio key again. The lamp will go off.
- •The special audio effect cannot be produced between the P IN and P OUT points. The effect will be produced as entered for the video effect. During audio split editing, the audio signals will be recorded as shown below.


The transition time is produced on this segment as entered for the video effect
Fade in
Fade out
AUDIO
VIDEO
The cut effect will be produced
AUDIO IN POINT
VIDEO IN POINT
VIDEO OUT POINT
AUDIO OUT POINT


Fade in
Fade out
VIDEO
AUDIO
The effect is produced on this segment as entered for the video effect
VIDEO IN POINT
AUDIO IN POINT
AUDIO OUT POINT
VIDEO OUT POINT

AUTO Key/TAKE Key — with the Switcher

AUTO Key

The AUTO key switches the operations of the TAKE key when sync-roll editing is executed.
The AUTO and TAKE keys function in these modes as shown below.

	AUTO ON	AUTO OFF
Sync-roll edit	The TAKE key is operative and pressed, the input from the switcher is switched and the points are entered as the A OUT and B IN points.	The TAKE key is operative and pressed, the input from the switcher is switched. However, the edit points are not entered.

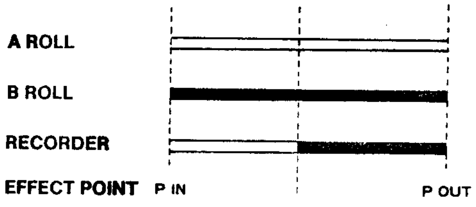
Note

Since the A/B point is entered automatically when the TAKE key is pressed in the AUTO ON mode, A/B roll editing is conducted when the Edit key is pressed again. When attempting sync-roll editing any number of times, proceed from the start in the AUTO OFF mode. (However, the A/B point will not be entered on EDL.)

TAKE Key

The TAKE key allows you to switch from the A roll to the B roll during sync-roll.

Sync-roll editing



⇧
If the TAKE key is pressed, the switcher is switched. (The edit points are entered when the Auto key is set to ON.)

Notes

- The Take points of the video and the audio are the same.
- The Take key is operative during the preview mode and when pressed, the A OUT and B IN points are entered (only when the Auto key is set to ON during sync-roll editing).
- If the TAKE key is pressed during A/B roll mode, the switcher is switched from A to B before the A/B point but the B picture may be still.
- When using the effect memory on the A/B point with the AG-SW800 and AG-RM800, refer to page 53.

Special Effect when the AG-RM800 is Connected — with the Switcher

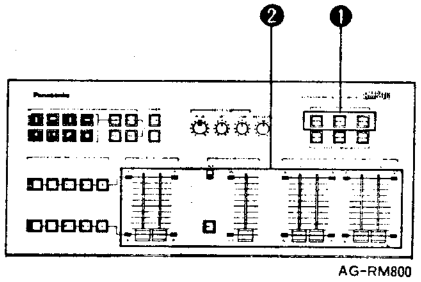
If the AG-SW800 (to which the audio/video switcher remote controller AG-RM800 is connected) and the AG-A800 are connected, the switcher selection of the bus A and bus B operated by the AG-RM800 fader manually, the operation of the special effects and performed on the AG-RM800 are memorized and reproduced during the editing. This is called the effect memory editing.
(The AG-RM800 is not operative unless connected to the AG-SW800.)

Control Switch

You can switch between the AG-A800 and the AG-RM800 when controlling the editing operations on the AG-RM800 or AG-A800.

❶ Select the signal for manual control.

❷ Operate the fader.



Notes

- If the fader lever is operated when the AG-SW800 is being controlled by the AG-A800, the automatic effect editing will stop operating and switch to manual operation by the AG-RM800. Therefore, only operate the fader lever when necessary.
- The relation between the status of the control selector switch and the units (AG-RM800, AG-A800) that remotely control the AG-SW800 are as follows:

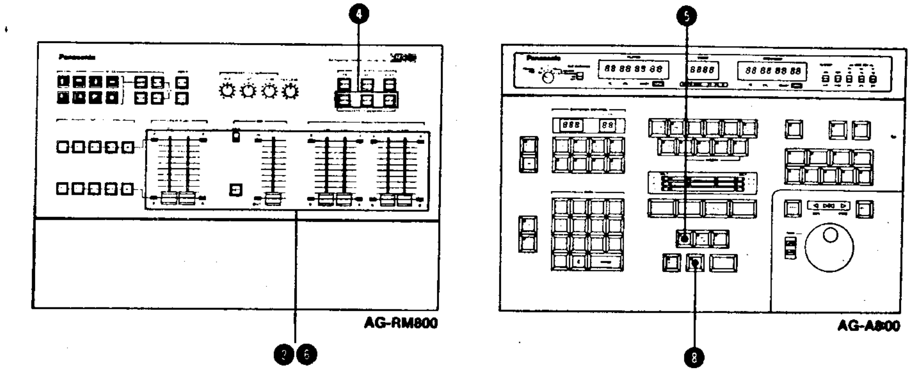
AG-SW800 Control Selector Switch	AG-RM800 Control key/lamp			A, B bus Input Selection	Effect mode	Fader operation			
	VIDEO	KEY	AUDIO			VIDEO	KEY	AUDIO	AUDIO
LOCAL	○/●	○/●	○/●	See Note	×	×	×	×	×
REMOTE	○	○	○	◎	◎	▲	▲	▲	▲
	○	○	●	◎	◎	▲	▲	◎	▲
	○	●	○	◎	◎	▲	◎	▲	▲
	○	●	●	◎	◎	▲	◎	◎	▲
	●	○	○	◎	◎	◎	▲	▲	△
	●	○	●	◎	◎	◎	▲	◎	△
	●	●	○	◎	◎	◎	◎	▲	△
	●	●	●	◎	◎	◎	◎	◎	△

○ : Lamp lights up
● : Lamp goes off
× : Not operated
◎ : Remotely controlled by the AG-RM800 or AG-A800
△ : Remotely controlled by the AG-RM800 or AG-A800
(controlled in conjunction with the video when remotely controlled by the AG-A800)
▲ : Remotely controlled by the AG-RM800 only
Note : Operated by the AG-SW800 (only the bus A).

Effect Memory — with the switcher and AG-RM800

The effect memory allows the memorization of the point where operating the fader on the AG-RM800 began and the duration (from the start of operating the fader until the end of using it) on the AG-A800.

The effect memory can be entered in each event.



❶ Enter all the edit points (and set the sync-roll). Refer to the entering procedure on page 21, 32, 51.

❷ The special effect mode can be set on the AG-A800 side.

❸ Set the fader with which the effect memory can be entered to bus A and turn off the lamp on bus B. (Set it to the OUT position if you wish to use the down stream keyer fader.)

❹ Select the signal to enter the effect memory.

❺ Rehearse the edit by pressing the Preview key.

❻ Operate the fader to enter the effect memory. It will be automatically entered.

❼ The memory lamp will flash while the fader is in operation. When operation stops the lamp will go off. The operation is entered.

❽ After the preview, press the Edit key to make the actual edit.

Notes

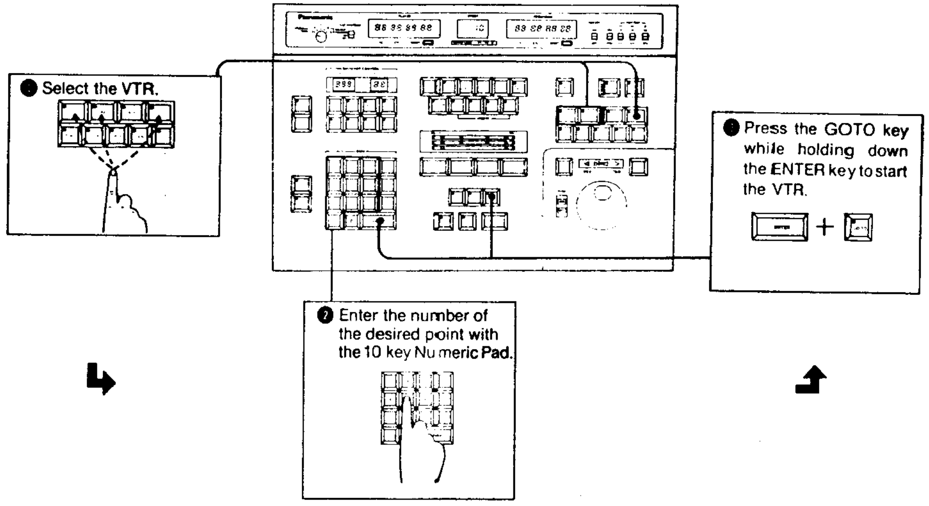
- The following are the faders to enter the effect memory.
  VIDEO: H/V fader (the V fader cannot be used.)
  DSK: Down stream keyer fader
  AUDIO: CH1 fader (CH2 is controlled in conjunction with the CH1 fader)
- The effect memory allows the memorizations of the operations of the Video, Key and Audio effects once for each of the events.
- Note that only the effect at the start point (A OUT) and the transition time can be entered if the fader is slid serveral times.
- To memorize the video or audio effect, memorize the sync-roll editing using the editing controller.
  If you already have been entered the A/B roll editing, the data cannot be rewritten using this function.
- When the down stream keyer effect memory is entered, the start point, the transition time and the end point can be set. When the fader is moved from IN to OUT and vice versa in step ❻, the points will be entered as the points between the down stream keyer effect. The transition times of the fade-in and fade-out effects are the same.
- The A/B roll editing cannot use this function.

Automatic Search (GO TO)

If you want to check a point quickly, press the GO TO key to cue up to that point.

To Search for a Desired Point

To cue up to that point with the 10 key Numeric Pad, follow the steps below:



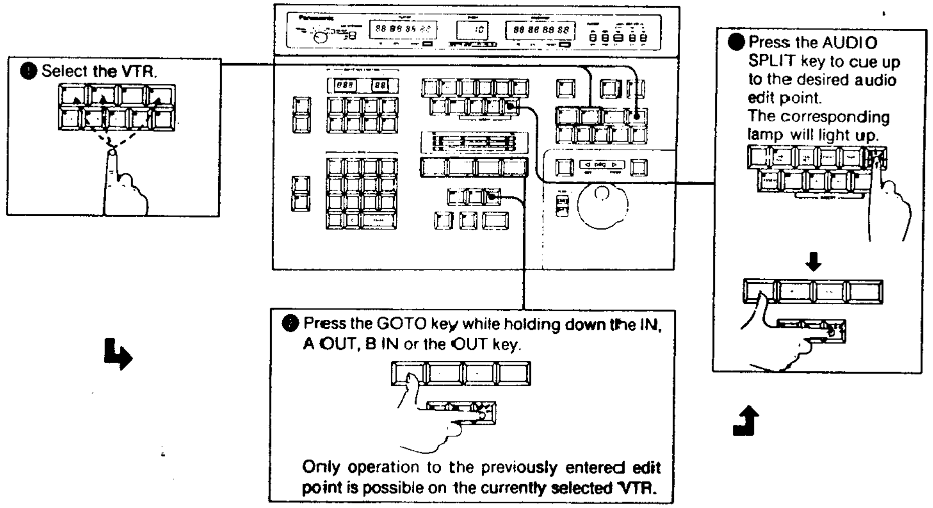
❶ Select the VTR.

❷ Enter the number of the desired point with the 10 key Numeric Pad.

❸ Press the GOTO key while holding down the ENTER key to start the VTR.

To Search Edit Points

The cue up to the edit points already entered, follow the steps below:



❶ Select the VTR.

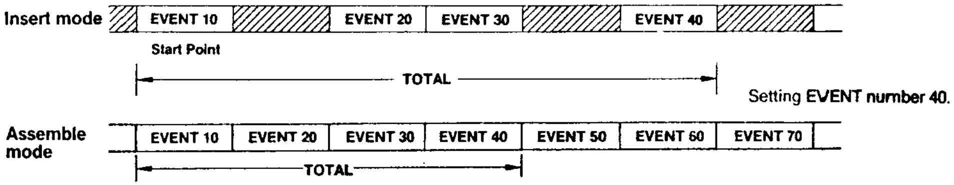
❷ Press the GOTO key while holding down the IN, A OUT, B IN or the OUT key.

Only operation to the previously entered edit point is possible on the currently selected VTR.

❸ Press the AUDIO SPLIT key to cue up to the desired audio edit point.
The corresponding lamp will light up.

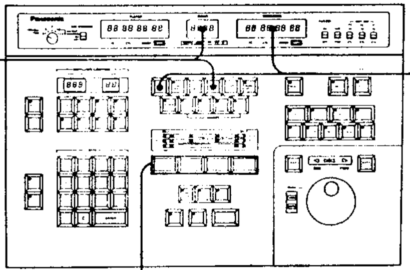
Total Time Display

The total time duration is measured from the IN point of the first event to the OUT point of the current event number and shown on the RECORDER display.
However, if the OUT point of the current event number has not been entered on the RECORDER, the display will show the total time duration up to the IN point. If the IN and OUT points have not been entered on the RECORDER, the display will show the total time duration up to the OUT point of the preceding event.

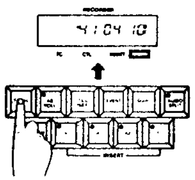

Insert mode
EVENT 10
EVENT 20
EVENT 30
EVENT 40
Start Point
TOTAL
Setting EVENT number 40.
Assemble mode
EVENT 10
EVENT 20
EVENT 30
EVENT 40
EVENT 50
EVENT 60
EVENT 70
TOTAL

Checking the Total Time

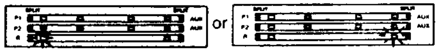
❶ This display shows the current event number.
Use the EVENT key to set the event number whose total time duration will be measured.



❸ The display will show the total time duration up to the current event number when the TOTAL key is pressed.

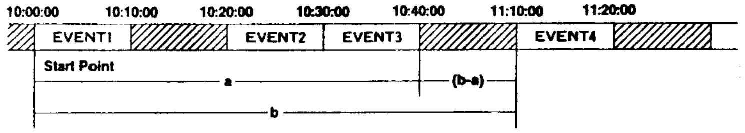


❷ These are used to check the entry of the OUT and IN points of the current event number on the RECORDER. If no points are entered, the display will show the total time up to the OUT point of the preceding event.



<Example>

To set the start point "00 10 00 00" (the IN point of the first event on the RECORDER is "00 10 00 00").


10:00:00
10:10:00
10:20:00
10:30:00
10:40:00
11:10:00
11:20:00
EVENT1
EVENT2
EVENT3
EVENT4
Start Point
a
(b-a)
b

- The total time duration calculated differs depending on whether the IN point of the EVENT 4 (show in above) has been entered on the RECORDER (b and a are shown in the diagram above).
- The total time will not be displayed if the start point has not been entered.
- The value displayed may not be correct if the button is pressed during editing.

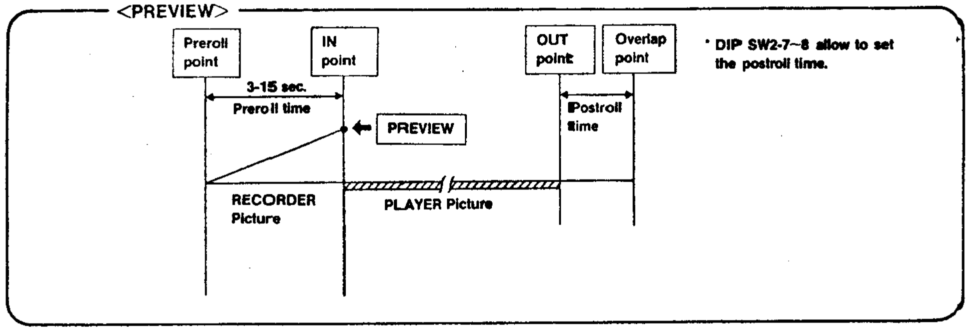
Checking Edit Data

This unit allows the checking of data which has already been entered.

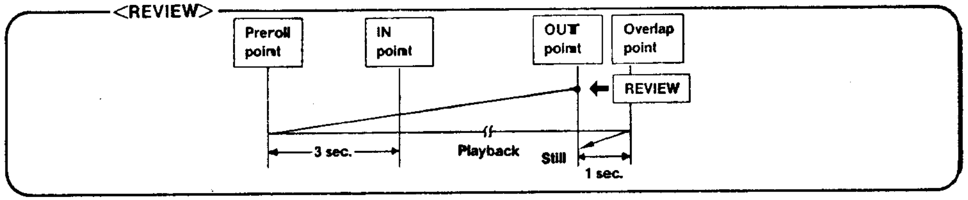
PREVIEW and REVIEW Functions

These functions make it possible to check if the editing data has been entered correctly.
The PREVIEW key enables the rehearsal of the editing process before actual recording by monitoring. The REVIEW key make it possible to play back the finished editing.

- **To preview the event data shown on the display, press the PREVIEW key. (Refer to page 25.)**


<PREVIEW>
Preroll point
IN point
OUT point
Overlap point
3-15 sec.
Preroll time
PREVIEW
Postroll time
RECORDER Picture
PLAYER Picture
* DIP SW2-7~8 allow to set the postroll time.

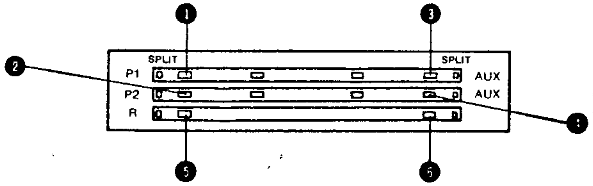
- **To review the event data shown on the display, press the REVIEW key. (Refer to page 27.)**


<REVIEW>
Preroll point
IN point
OUT point
Overlap point
REVIEW
3 sec.
Playback
Still
1 sec.

Checking the entered edit points with the edit lamps

You can make sure all the edit points necessary for the edit have been entered with **the edit point lamps. Note that these lamps will** light up as explained below depending on the procedure followed.

BASIC EDITING WITH ONE CUT



① When the P1 VTR is the source, this lamp will light up after the edit IN point has been entered on this VTR.

② When the P2 VTR is the source, this lamp will light up after the edit IN point has been entered on this VTR.

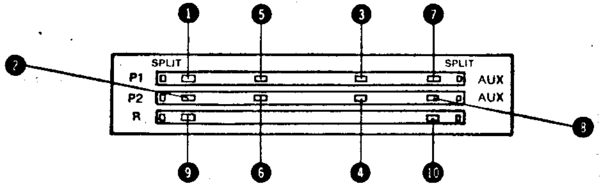
③ When the P1 VTR is the source, this lamp will light up after the edit OUT point has been entered on this VTR.

④ When the P2 VTR is the source, this **lamp will light up after** the edit OUT point has been entered **on this VTR.**

⑤ This lamp will light up after the **edit IN point has been** entered on the recorder VTR side.

⑥ This lamp will light up after the edit **OUT** point has been entered on the recorder VTR side.

A/B ROLL EDITING



① If the **A roll is on the P1 VTR, this lamp will light up after the** edit **IN point is on the A roll.**

② **If the A roll is on the P2 VTR, this lamp will light up after the edit IN point is entered on the A roll.**

③ If the B roll is on the P1 VTR, this lamp will light up after the edit IN point is entered on the B roll.

④ If the B roll is on the P2 VTR, this lamp will light up after the edit IN point is entered on the B roll.

⑤ If the A roll is on the P1 VTR, this lamp will light up after the edit OUT point is entered on the A roll.

⑥ If the **A** roll is on the P2 VTR, this lamp will light up after the edit **OUT** point is entered on the A roll.

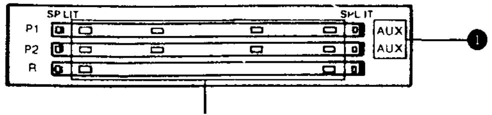
⑦ If the **B roll is on** the P1 VTR, this lamp will light up after the edit **OUT** point is entered on the B roll.

⑧ If the B roll is on the P2 VTR, this lamp will light up after the edit OUT point is entered on the B roll.

⑨ This lamp will light up after the edit IN point is entered on the recorder VTR side.

⑩ This lamp will light up after the edit OUT point is entered on the recorder VTR side.

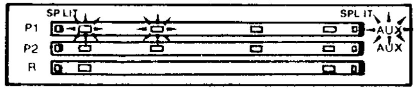
EDITING WITH THE AUXILIARY EQUIPMENT



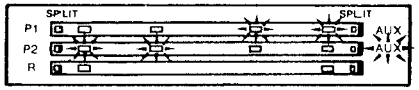
•These lamps function as explained in the previous page.

① **If the auxiliary equipment is used, this lamp will light up and the P1 or P2 lamp on the left side will function as the edit lamps of the auxiliary equipment.**
The upper AUX lamp lights up when normal editing is performed.
Refer to the following notes when performing A/B roll editing.

Notes
If the edit points are entered on the auxiliary equipment (the A roll is on the AUX) during A/B roll editing, the upper (P1) AUX lamp will light up (see figure below).

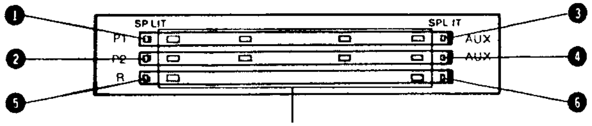


If the B roll is on the P1 VTR, the AUX lamp will shift to the lower side (see figure below).



•If the B roll is on the P2 VTR, the upper AUX lamp will remain lit.
•If the B roll is on the AUX, the lower AUX lamp will light up in case the A roll is on the P1 VTR, and the upper AUX lamp will light up in case the B roll is on the P2 VTR.
•Refer to page 36.

AUDIO SPLIT EDITING



•The lamps in this mode function in the similar way as in other editing modes.

① **If the P1 VTR audio IN point is entered the lamp will light up.**

② If the **P2 VTR audio IN point is entered the lamp will light** up.

③ If the **P1 VTR audio OUT point is entered the lamp will light** up.

④ If the P2 VTR **audio OUT point is entered the lamp will light** up.

⑤ This lamp will light up after the **audio IN point has been** entered on the recorder VTR side.

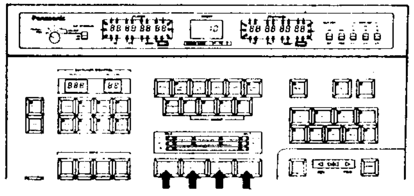
⑥ This lamp will light up after the audio OUT point has been entered on the recorder VTR side.

•**Refer to page 37.**

Checking Edit Point Data

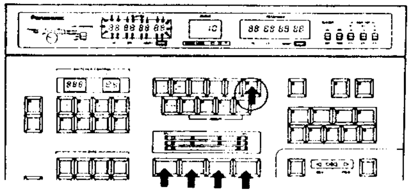
Once the entry of edit points has finished, both displays **for the RECORDER and PLAYER will show the positions of the tapes** in the VTRs.
You can check each edit point by pressing the following **keys: IN, A OUT, B IN and OUT.**

- **Checking the PLAYER and RECORDER Edit Points**
  The edit points will be shown on the displays for the PLAYERs and RECORDER.

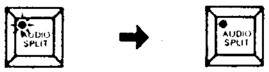


IN key ....To check the IN points of the PLAYER and RECORDER.
In the A/B Roll editing mode, to check the IN point of the A Roll.
A OUT key..............To check the OUT point of the A Roll in the A/B Roll editing mode.
B IN key ....To check the IN point of the B Roll in the A/B Roll editing mode.
OUT key ....To check the OUT points of the PLAYER and RECORDER.
In the A/B Roll editing mode, to check the OUT point of the B Roll.

- **Checking the Edit Points in the Audio Split Entry Mode**
  The edit points will be shown on the display for the PLAYER.



Press the AUDIO SPLIT key to set the unit to the **AUDIO SPLIT** entry mode. The corresponding lamp will light **up.**



If the key is pressed again, this mode will be cancelled and the lamp will go out.

IN key ....To check the AUDIO IN point.
A OUT or B IN key ......To check the OUT point of the **A Roll or the IN point of the B Roll in the A/B Roll editing mode.**
OUT key ....To check the OUT point.

Checking the Time Duration of an Edit

Press the DUR key ······················· The time duration will be shown on **the PLAYER** and RECORDER displays.

- In the A/B Roll editing mode, the display will switch depending **on the setting of the VTR** Selection Switch.

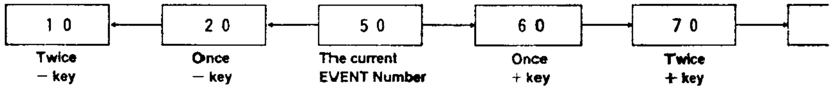
VTR selection switch setting	PLAYER Display	RECORDER Display
R key (RECORDER)	No display	The time duration for the recorder is displayed.
P1, P2 or AUX key (A ROLL VTR)	The time duration of roll A is displayed.	The time duration for the recorder is displayed.
P1, P2 or AUX key (B ROLL VTR)	The time duration of roll B is displayed.	The time duration for the recorder is displayed.

Checking the Edit Data of Several Cuts

- **Follow the steps below when using the PLUS (+) or MINUS (–) key.**

❶ Press the PLUS or MINUS key together with the EVENT key.

❷ The event number will increase by one on the display each time the PLUS key is pressed.
The event number will decrease by one each time the MINUS key is pressed.



The event numbers which have not been entered will not be displayed (in the example **above, 30 and 40 have not been entered).**

❸ Check the edit data with the IN, A OUT, B IN, OUT keys.
•Follow the steps shown below when using the numeric pad.

Press the EVENT key
↓
Enter the desired EVENT Number using the 10 key Numeric Pad
↓ ←— The EVENT Number will be displayed.
Press the ENTER key
↓
Check the Edit Data by pressing the IN, A OUT, B IN and OUT keys.

Checking the Range of events to be Edited Automatically

The unit allows you to check the range of the events that will be edited automatically.
The event numbers will be displayed when the ~, IN and OUT keys are kept depressed.
Press the ~ key → **The first event number will be displayed on the Player display.**
The last event number will be displayed on the Recorder display.

Changing Edit Data

Edit point adjustment using the + or − key

Enter the EVENT Number to be changed

↓

Select the PLAYER or RECORDER

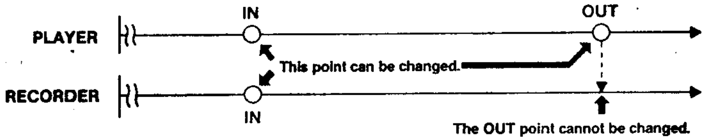
↓

Press the + or − key together with any necessary key IN, A OUT, B IN and OUT keys and make the necessary number adjustment.

- The number will change by one frame each time the +/− keys are pressed.

- **It is recommended to delete edit process data and re-enter it when it is necessary to change large portions of this data.**

Note: The record point calculated automatically internally can not be adjusted using the − and + keys.
The edit OUT point of the RECORDER which has automatically been entered after the entry of IN/OUT points of the PLAYER and the IN point of the RECORDER cannot be changed.



If the IN and OUT point of the RECORDER is entered at the primary stage and then changed at the OUT point of the RECORDER, the OUT point data of the PLAYER will change automatically but the IN point data of the RECORDER will not be changed.

Changing the edit point using the 10 key Numeric Pad

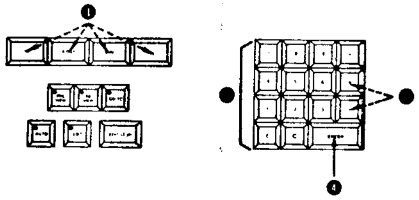
For adjustment with the +/− key

❶ Select the edit point to be changed by pressing the IN, A OUT, B IN and OUT keys after selecting the event number and the PLAYER or RECORDER.

❷ Press the + or − key.

❸ Enter the increased or decreased number to be corrected using the 10 key Numeric Pad.

❹ Press the ENTER key.



For inputting new data

❶ Select the edit point to be changed by pressing the IN, A OUT, B IN and OUT key after selecting the event number and the PLAYER or RECORDER.

❷ Enter the correct data using the 10 key numeric pad.

❸ Press the ENTER key.

Changing the KEY effect data etc.

Enter the new data that is required.

Note
If the Edit data is changed with Automatic continuity editing, the edit data list must be modified. Refer to page 64.

Deleting Edit Data

Edit data deletion

- **To delete the edit points in an event, etc.**

Enter the EVENT Number to be deleted

↓

Select the VTR.

↓

Select the Edit Point to be deleted by pressing the IN, A OUT, B IN and OUT keys (TRAN, PATTERN key, etc.)

↓

Press the C (CLEAR) key and the ENTER key together

- **To delete all the data entered in an event**

Enter the EVENT Number to be deleted

↓

Press the EVENT key

↓

Press the C (CLEAR) key and the ENTER key together

- **To delete the edit points of all the events**

Press the EVENT key

↓

Enter "9999" using the 10 key Numeric Pad

↓

Press the AUTO key and the ENTER key together

- **To cancel the range of automatic continuity editing**

Press the ~ key

↓

Press the ENTER key while holding down the C key

Note
Enter the new data with the multi edit data list to modify the edit data list, refer to page 64.

EVENT Number Order Modifying

It is possible to line up the event number entered at random.

<Example 1>

Edit Data Entries

EVENT No.	VTR No.	Mode	CUT	P-IN	P-OUT	R-IN	R-OUT
0010	001	V	C	00:00:00:00	00:01:00:00	00:00:00:00	00:01:00:00
0050	101	V	C	00:07:10:00	00:07:50:00	00:03:00:00	00:03:40:00
0070	001	V	C	00:12:30:00	00:15:00:00	00:05:30:00	00:08:00:00
0080	001	V	C	00:15:20:00	00:15:50:00	00:08:30:00	00:09:00:00
0120	101	V	C	00:18:00:00	00:20:40:00	00:09:10:00	00:11:50:00

Press the EVENT key

Enter "9970" using 10 key Numeric Pad

Press the ENTER key together with the AUTO key.

Edit Data Entries

EVENT No.	VTR No.	Mode	CUT	P-IN	P-OUT	R-IN	R-OUT
0010	001	V	C	00:00:00:00	00:01:00:00	00:00:00:00	00:01:00:00
0020	101	V	C	00:07:10:00	00:07:50:00	00:03:00:00	00:03:40:00
0030	001	V	C	00:12:30:00	00:15:00:00	00:05:30:00	00:08:00:00
0040	001	V	C	00:15:20:00	00:15:50:00	00:08:30:00	00:09:00:00
0050	101	V	C	00:18:00:00	00:20:40:00	00:09:10:00	00:11:50:00

To Modify Edit Data

This unit can reset and line up the edit point data.

<Example 1>

Edit Data Entries

EVENT No.	VTR No.	Mode	CUT	P-IN	P-OUT	R-IN	R-OUT
0010	001	V	C	00:00:00:00	00:00:05:00	00:00:00:00	00:00:05:00
0020	101	V	C	00:00:10:00	00:00:15:00	00:00:05:00	00:00:10:00
0030	001	V	C	00:00:30:00	00:00:35:00	00:00:10:00	00:00:15:00
0040	001	V	C	00:00:45:00	00:00:50:00	00:00:15:00	00:00:20:00
0050	101	V	C	00:00:16:00	00:00:26:00	00:00:20:00	00:00:30:00

Change the Edit point of EVENT Number 20, 15 seconds to 12 seconds

Edit Data Entries

EVENT No.	VTR No.	Mode	CUT	P-IN	P-OUT	R-IN	R-OUT
0010	001	V	C	00:00:00:00	00:00:05:00	00:00:00:00	00:00:05:00
0020	101	V	C	00:00:10:00	● 00:00:12:00	00:00:05:00	● 00:00:07:00
0030	001	V	C	00:00:30:00	00:00:35:00	00:00:10:00	00:00:15:00
0040	001	V	C	00:00:45:00	00:00:50:00	00:00:15:00	00:00:20:00
0050	101	V	C	00:00:16:00	00:00:26:00	00:00:20:00	00:00:30:00

❶ Enter the new data.
❷ Automatically changed.

Enter "9980" using the 10 key Numeric Pad

Press the ENTER key together with the AUTO key.

Edit Data Entries

EVENT No.	VTR No.	Mode	CUT	P-IN	P-OUT	R-IN	R-OUT
0010	001	V	C	00:00:00:00	00:00:05:00	00:00:00:00	00:00:05:00
0020	101	V	C	00:00:10:00	00:00:12:00	00:00:05:00	00:00:07:00
0030	001	V	C	00:00:30:00	00:00:35:00	00:00:07:00	00:00:12:00
0040	001	V	C	00:00:45:00	00:00:50:00	00:00:12:00	00:00:17:00
0050	101	V	C	00:00:16:00	00:00:26:00	00:00:17:00	00:00:27:00

SAVE/LOAD Edit Data — with Personal Computer

SAVE Edit Data

•Connect the DATA IN/OUT connector to the RS-232C connector of the external equipment, e.g. personal computer. (However, if the personal computer is used, it is necessary to use a special communication software or the MS-DOS operating system.)

Operating Procedure

Example:
Personal Computer: IBM PC/AT
Operating System: MS-DOS (Ver 3.20)

1. Set the communication protocol on the personal computer.
   - baud rate : 9600 BPS
   - data length : 8 DATA BIT
   - parity : NON PARITY
   - stop bit length : 2 STOP BIT

•Enter as shown below.

```
A>MODE COM1:9600,N,8,2,P ↵
```

↵ : Return key

2. Set the personal computer to the data receive status.

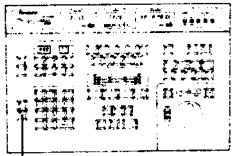
•Enter as shown below.

```
A>COPY AUX ___/A ↵
```

Enter the file name.
eg) DATA1.DAT
EDTDATA.DAT

3. Start sending the data on the editing controller.

•Press the SAVE key.
The Save lamp will light up.



4. Communication ended

•The Save lamp will go off.
•After the data is saved on the disk (or hard disk) on the personal computer, the prompt below will appear on the screen.

```
A>
```

<Notes>
- The data is output in the ASCII format.
- The event numbers are displayed from the first event in three columns: "001", "002", "003", etc.
- When the SAVE key is pressed again while the SAVE lamp is lit, the lamp will go off and the output is stopped. However, the personal computer will remain in the receive status.
- Unnecessary characters may be inserted at the beginning of the data communication depending on the type of personal computer being used. The EDL (Edit Decision List) of the AG-A800 begins with the indication "001" of EVENT No. Delete the characters, if any, before this indication.
- If the communication protocol has been wrongly set or the communication cable is not properly connected, the input can be rejected through the keyboard of the personal computer. In this case, set it again following the procedures suitable for the type of personal computer being used.
- Once the communication protocol has been set, it does not have to be set again unless the personal computer is initialized or a communication software is used.
- Refer to the specifications on the back cover for information on the computers that can be connected to this unit.
- Note that the operating procedures differ depending on the operating system or the personal computer being used.

MS-DOS is a trademark of Microsoft Corporation, U.S.A.

LOAD Edit Data

•Connect the DATA IN/OUT connector to the RS-232C connector of the external equipment, eg personal computer. (However, if the personal computer is used, it is necessary to use a special communication software or the MS-DOS operating system.)

Operating Procedure

Example:
Personal Computer: IBM PC/AT
Operating System: MS-DOS (Ver 3.20)

1. Set the communication protocol on the personal computer.
   - baud rate : 9600 BPS
   - data length : 8 DATA BIT
   - parity : NON PARITY
   - stop bit length : 2 STOP BIT

•Enter as shown below.

```
A>MODE COM1:9600,N,8,2,P ↵
```

2. Type the file name that will be input to the personal computer. Type as shown on the right but do not press the Enter (or Return) key.

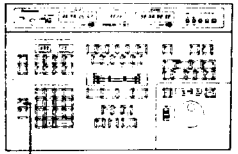
•Type as shown below.

```
A>COPY ________/B AUX
```

Type the file name already entered when the edit data is output. An error will occur if the file name typed does not exist.

3. Set the editing controller to the data receive status.

•Press the LOAD key.
The LOAD lamp will light up.



4. Start sending the data on the personal computer.

•Press the Return key.

```
A>COPY ________/ B AUX ↵
```

5. Communication ended.

•The prompt below will appear on the screen of the personal computer.

```
A>
```

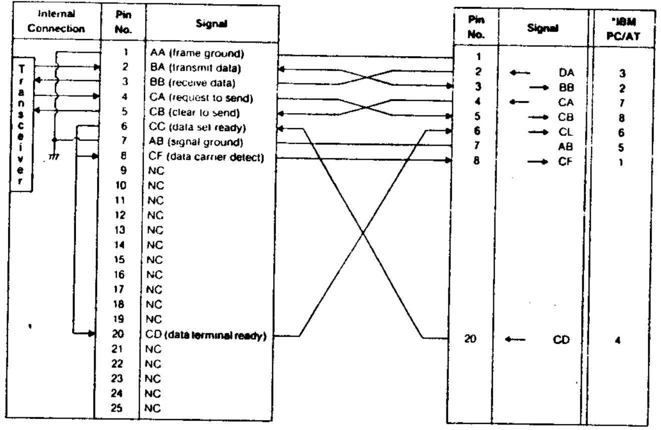
•The LOAD lamp will go off.

<Note>
•The event numbers for the editing data are "0001", "0002", "0003", etc.
To use a multiple of ten as an event number, eg "0010", "0020", "0030", etc., modify the event number. (See page 63.)

CPU Signal When Data is Input/Output

The connection of the CPU signal when data is input/output is as shown below.

AG-A800 Side
DATA IN/OUT Connector


External Equipment
Internal Connection
Pin No.
Signal
Transceiver
1 AA (frame ground)
2 BA (transmit data)
3 BB (receive data)
4 CA (request to send)
5 CB (clear to send)
6 CC (data set ready)
7 AB (signal ground)
8 CF (data carrier detect)
9 NC
10 NC
11 NC
12 NC
13 NC
14 NC
15 NC
16 NC
17 NC
18 NC
19 NC
20 CD (data terminal ready)
21 NC
22 NC
23 NC
24 NC
25 NC
Pin No.
Signal
*IBM PC/AT
1
2 DA 3
3 BB 2
4 CA 7
5 CB 8
6 CL 6
7 AB 5
8 CF 1
20 CD 4

- The connections of the signal may differ depending on the external equipment in use.

The input and output voltages on the AG-A800 are as follows:

Output voltages	OH OL	+12V −12V
Rated input voltages	IH IL	+8~+12V −8~−12V

* The pin numbers are those for the IBM PC/AT.

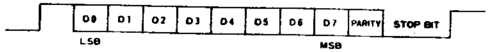
EDL Format

The format of the EDL (Edit Decision List) for the AG-A800 is as shown below.

```
001  001  ASSM  C        01:01:40:12 01:01:50:03 00:00:00:00 00:00:09:16 ] Normal editing
SPLIT:    VIDEO DELAY=  00:00:01:05                                      ] Note audio split
002  002  AA    C        01:02:39:22 01:02:47:03 00:00:08:11 00:00:15:17 ]
002  002  V     C        01:02:41:02 01:02:47:03 00:00:09:16 00:00:15:17 ] Normal editing (audio split is produced)
003  001  AA/V  C        01:02:01:20 01:02:24:00 00:00:15:17 00:00:37:22 ]
003  002  AA/V  D    050 01:03:03:12 01:03:36:16 00:00:37:22 00:01:11:01 ] A/B roll editing
004  001  AA/V  C        01:00:21:17 01:00:36:13 00:01:11:01 00:01:25:22 ]
004  003  V     DSK  000 00:00:00:00 00:00:08:15 00:01:13:05 00:01:21:20 ] Normal editing (the DSK effect is produced)
005   BL  AA/V  C        00:00:00:00 00:00:00:00 00:01:25:22 00:01:25:22 ]
005  002  AA/V  D    060 01:04:16:18 01:04:48:11 00:01:25:22 00:01:57:15 ]
005  001  AA/V  W005 080 01:09:12:13 01:09:49:23 00:01:57:15 00:02:35:00 ] A/B roll editing (the fade IN/OUT effect is produced)
005   BL  AA/V  D    080 00:00:00:00 00:00:03:05 00:02:31:20 00:02:35:00 ]
                         Player IN   Player OUT  Recorder IN Recorder OUT
```

Transition time: In frame units.
Effect modes: C (cut), D (dissolve), W005 (wipe, pattern number: 005) DSK (down stream keyer foreground).
Editing modes: A (A1), V (V), B (A1+V), A2 (A2), A2/V (A2+V), AA (A1+A2), AA/V (A1+A2+V) Insert, ASSM (assemble).
VTR reel number: BL (black video picture), 001 (player 1), 002 (player 2), 003 (DSK foreground), 004 (white video picture), AX (AUX).
Event No.

Serial Communication Format


D0
D1
D2
D3
D4
D5
D6
D7
PARITY
STOP BIT
LSB
MSB

- The following protocol can be set with the DIP switches.

1. 7, 8 DATA BITS
2. EVEN/ODD/NON PARITY BIT
3. 1, 2 STOP BIT
4. 110, 300, 600, 1200, 2400, 4800, 9600, 19200 BPS. (See 70 page.)

Modifying the Tape Speed with the SEARCH DIAL

When an optional Interface Board is used to control the VTR, the speed of the tape set with the Search Dial will be modified as shown below according to the VTR connected to this unit.

JOG MODE					
Models	Reverse Direction	−1 frame	Still	1 frame	Forward Direction
AU-650B	Speed variable from 1/32~1 times normal playback speed.	○	○	○	Speed variable from 1/32~2 times normal playback speed.
AG-7500/7510	Speed variable from 1/25~2 times normal playback speed.	○	○	○	Speed variable from 1/25~2 times normal playback speed.
AG-6500	Speed variable from 1/25~2 times normal playback speed.	○	○	○	Speed variable from 1/25~2 times normal playback speed.

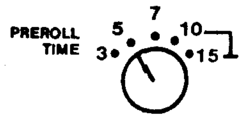
SHTL MODE			
Models	Reverse Direction	Still	Forward Direction
AU-650B	Speed variable from 1/16~32 times normal playback speed.	○	Speed variable from 1/16~32 times normal playback speed.
AG-7500/7510	Speed variable from 1/25~10 times normal playback speed.	○	Speed variable from 1/25~10 times normal playback speed.
AG-6500	Speed variable from 1/25~10 times normal playback speed.	○	Speed variable from 1/25~10 times normal playback speed.

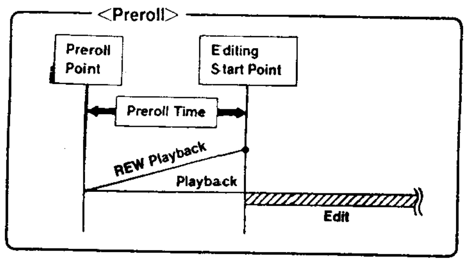
○=Possible function in this unit.
"1" is the parameter value which stands for normal playback speed and in terms of which variable speed values are expressed.

Preroll Time Setting

The 3-, 5-, 7-, 10- and 15-second preroll times can be set with the Preroll Time Selection Switch on the control panel. The preroll time should be prolonged when synchronization is not satisfactory. If synchronization is not satisfactory after the preroll time has been prolonged, turn the CAPSTAN OVERRIDE Selector Switch off. However, Synchronization can be performed.

Set the Preroll Time Selection Switch to the desired position.


PREROLL TIME
3
5
7
10
15

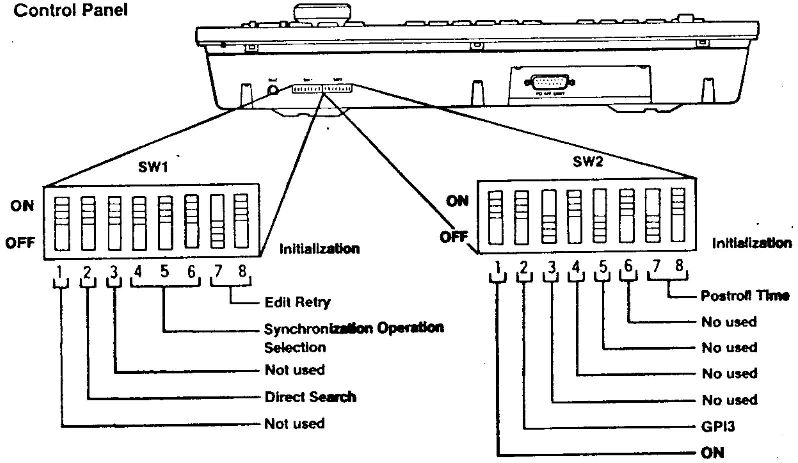

<Preroll>
Preroll Point
Editing Start Point
Preroll Time
REW Playback
Playback
Edit

The preroll time setting of the switch above is for 5 seconds.

- **If synchronization is not performed, you can finely adjust the start timing with the Edit Time Switch of the 34-pin Interface Board for accurate editing. Refer to page 78.**

DIP Switch Settings

Control Panel


SW1
ON
OFF
1 2 3 4 5 6 7 8
Initialization
Edit Retry
Synchronization Operation Selection
Not used
Direct Search
Not used
SW2
ON
OFF
1 2 3 4 5 6 7 8
Initialization
Postroll Time
No used
No used
No used
No used
GPI3
ON

SW1-1: Not used

SW1-2: Direct Search
This switch directly sets the unit to the search mode when the Search dial is used in modes other than recording. It is not necessary to press the SRCH key.
ON → The unit is directly set to the Search mode.
OFF → No direct Search mode. SRCH key must be pressed.

SW1-4:
SW1-5: Synchronization Operation Selection
SW1-6: Used to select the synchronization method for the respective VTRs.
ON→ Performed with CAP OVERRIDE
OFF→ Performed in shuttle mode
SW1-4: Synchronization on RECORDER VTR
SW1-5: Synchronization on PLAYER2 VTR
SW1-6: Synchronization on PLAYER1 VTR

Note:
Leave switches in the "OFF" position if the CAP OVERRIDE terminal is not connected.

Synchronization may not be possible in the shuttle mode. In this case, set the CAP OVERRIDE switch on the operation panel to the "OFF" position.

SW1-7:
SW1-8: **Edit Retry**
These two switches set the number of times the retry function will be performed when a preview, edit or automatic edit has not been executed correctly.

Retry	0*	2	–	–
SW1-7	0	0	1	1
SW1-8	0	1	0	1

"0" → "OFF", "1" → "ON"

*** The Retry mode is not possible as both switches are set to OFF.**

Note:
In the Retry mode, the preroll times are prolonged as follows:
The 3- and 5-second preroll times are increased by two (2) seconds; the 7-second preroll time by three (3) seconds and the 10- and 15- second preroll times by five (5) seconds from second times.

SW2-1: ON
SW2-2: Set the timing of GPI3 pulse signal switches from OPEN to CLOSE or vice versa.
ON—Switches the audio edit timing.
OFF—Switches the Key operation timing.

SW2-7
SW2-8 Sets the post-roll time as follows:

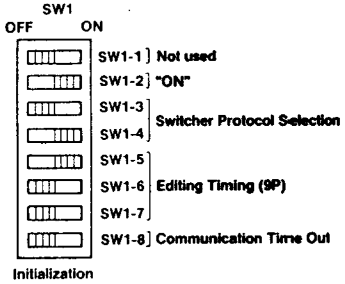
Post-roll time (in seconds)	0.5	1	2	3
SW2-7	0	0	1	1
SW2-8	0	1	0	1

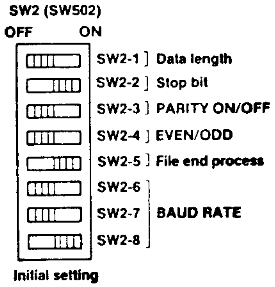
0 → "OFF", 1 → "ON"

Note
The post-roll time is one second during preview regardless of the switch settings.

I/F Unit

The DIP Switches are located inside the I/F unit.
Consult your dealer for information on DIP SW settings.


SW1
OFF
ON
SW1-1 Not used
SW1-2 "ON"
SW1-3
SW1-4 Switcher Protocol Selection
SW1-5
SW1-6 Editing Timing (9P)
SW1-7
SW1-8 Communication Time Out
Initialization


SW2 (SW502)
OFF
ON
SW2-1 Data length
SW2-2 Stop bit
SW2-3 PARITY ON/OFF
SW2-4 EVEN/ODD
SW2-5 File end process
SW2-6
SW2-7 BAUD RATE
SW2-8
Initial setting

SW1-1: **Not used**
SW1-2: **ON**
SW1-3:
SW1-4: These switches determine the appropriate protocols for optional switchers AG-SW800.

Switchers	—	AG-SW800	—	—
SW1-3	0	0	1	1
SW1-4	0	1	0	1

"0" → "OFF", "1" → "ON"

SW1-5: **Set the edit command timing.**
SW1-6: Available only when 9-pin serial interface board is
SW1-7: connected.

Timing	–1	–2	–3	–4	–5	–6	–7	–8
SW1-5	0	0	0	0	1	1	1	1
SW1-6	0	0	1	1	0	0	1	1
SW1-7	0	1	0	1	0	1	0	1

"0" →"OFF", "1" →"ON" **INITIAL VALUE**
MII VTR: –5 Frame

Reference
BVU-800 (SONY): –1 frame
BVU-950 (SONY): –6 frames
BVW-75 (SONY): –3 frames

•The BVU-800, BVU-950 and BVW-75 are made by SONY Corporation.

SW1-8: Sets the communication time-out when communicate with personal computer.
ON: 3 sec.
OFF: The communication time-out is not executed.

SW2: Switches the RS-232C on the Host CPU

Switch		Content	1 (ON)	0 (OFF)
SW2	–1	Communication data length	7-bit	8 bit
	–2	Stop bit length	2 STOP bit	1 STOP bit
	–3	—	PARITY ON	PARITY OFF
	–4	—	EVEN PARITY	ODD PARITY
	–5	—	CR, LF,^Z output	^Z output
	–6	See figure below		
	–7			
	–8			

BAUD RATE		110	300	600	1200	2400	4800	9600	19200
SW2	–6	1	1	1	1	0	0	0	0
	–7	1	1	0	0	1	1	0	0
	–8	1	0	1	0	1	0	1	0

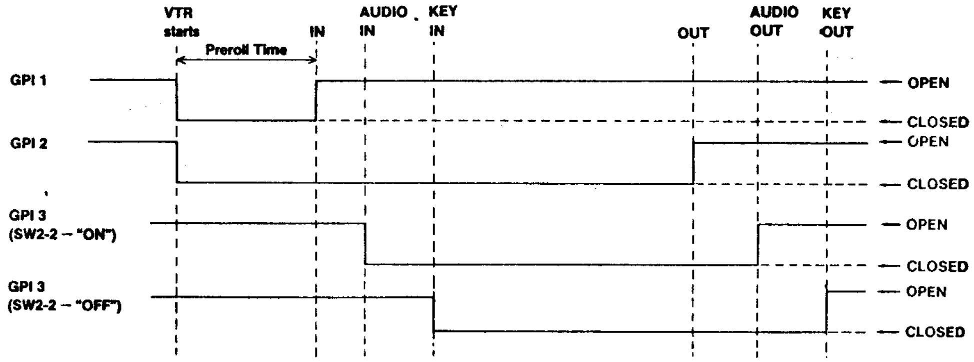
0 → "OFF", 1 → "ON"

Pulse signal from the AUX Control Connector

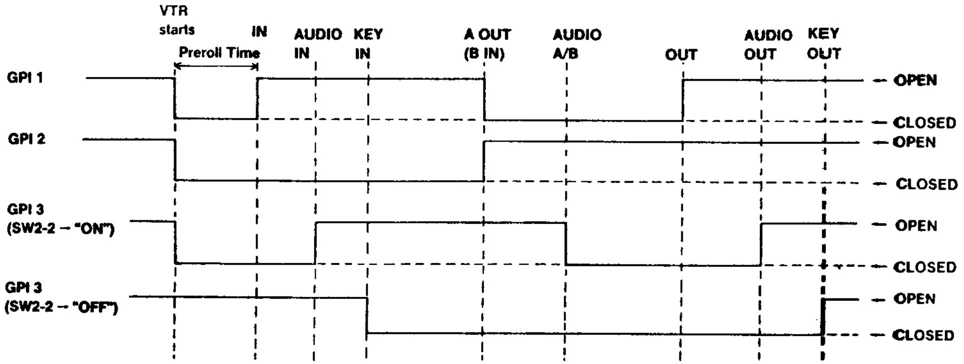
The unit controls the start of the external unit and the switcher, when they are connected to the AUX **CONTROL Connector, by** sending out pulse signals.
Three pulse signals are output from the 15 Pin AUX CONTROL **Connector as follows:**

GPI 1: The Pulse signal is outputted from Pins 1 and 2.
GPI 2: The Pulse signal is outputted from Pins 3 and 4.
GPI 3: The Pulse signal is outputted from Pins 5 and 6.

The pulse signals will vary as shown from the start to the end of the edit.



• A/B Roll Editing Mode



- **When the DIP SW2-2 on the control panel is set to ON, the signal from the GPI3 is synchronized with the audio edit points. When set to OFF, it is synchronized with the Key IN/OUT points and then outputed.**
- **The GPI pulse signal is outputed one frame before the time set.**

Error Messages

The buzzer on the unit will sound **three times to indicate that an operation error has occurred and the following error messages will** be shown on the display on the RECORDER Side **after pressing the TOTAL key.**

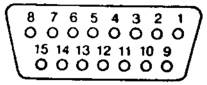
ERROR CODE TABLE

Code Number	NO ERROR
00-00	There has been no error since the power was turned "ON". The operation has been completed correctly.
Code Number	**PLAYER CONTROL AND AUX ERRORS**
01-00	No commands are acceptable except "STOP" during the editing operation.
01-01	"RESET" is not acceptable except in the CTL mode.
01-02	PLAYER 1 has not been connected. Or CONTROL Switch of the VTR is in the "LOCAL" position. Or VTR is in the EJECT mode.
01-03	PLAYER 2 has not been connected. Or CONTROL Switch of the VTR is in the "LOCAL" position. Or VTR is in the EJECT mode.
01-04	This unit does not work in the following case. (EXAMPLE) The execution of playback can not be performed when selecting the external signal.
Code Number	**RECORDER CONTROL ERRORS**
02-00	No commands are acceptable except "STOP" during the editing operation.
02-01	"RESET" is not acceptable except in the CTL mode.
02-02	The RECORDER has not been connected. The CONTROL Switch is set to **"LOCAL". The VTR is in the** EJECT mode.
02-03	Cannot be operated **because the switcher** AG-SW800 is not connected.
Code Number	**EDIT ENTRY ERRORS**
03-00	The entry of the edit points is not completed.
03-01	The multi-event memory is full.
03-02	Mode can not be changed because the VTRs are in the EDIT mode.
03-03	Neither checking nor changing is possible during the auto editing operation.
03-04	The PLAYER has not been connected. Input the edit data using the 10 key Numeric Pad only.
03-05	The recorder has not been connected. Input the edit data using the 10 key Numeric Pad only.
03-06	This is the 4th or 6th edit point. Delete one of the previous points and then enter it.
03-07	The audio-split has been entered twice.
03-08	Not possible during the editing operation.
03-09	No edit entry.
03-10	This unit does not work in the following case. (EXAMPLE) When correcting the edit points, no **data is input follow the pressing of the + or – key.**
03-12	The event number must be between "0000" and **"9899".**
03-13	Rejected as the current mode is LOAD/SAVE.
03-14	The edit IN point is larger than the edit OUT **point.**
03-15	The input data is not correct in the Time unit.
03-16	The event number being displayed indicates **maximum or minimum of all events entered.**

DISPLAY	EDITING ERROR
05-00	The key input is not operative as an edit is in progress.
05-01	The key input is not operative as the edit is not complete.
05-02	The key input is not operative as the edit points have not been entered.
05-03	The current and previous events cannot be reviewed as they have not been edited.
05-04	The edit cannot be made as the player VTR side has not been connected.
05-05	The edit cannot be made as the recorder VTR side has not been connected.
05-06	The servo on the player VTR side is disturbed during the edit.
05-07	The servo on the recorder VTR side is disturbed during the edit.
05-08	The servo can not be locked on the VTR.
05-09	The VTR cannot be controlled during the edit.
05-10	Colour framing error
05-11	Synchronization has not been performed.
05-13	The edit is not possible as the current mode is LOAD/SAVE.
DISPLAY	**LOAD/SAVE ERROR**
06-00	LOAD/SAVE cannot be executed as an edit is in progress.
06-01	The operation is not possible as the current mode is SAVE.
06-02	The operation is not possible as the current mode is LOAD.
06-03	Communication error in loading (data will not be transmitted for more than 3 seconds).
06-04	The event number to be loaded is wrong.
06-05	The number of the VTR for the loading operation is wrong.
06-06	The preset data for the loading operation is wrong.
06-07	The transition data for the loading operation is wrong.
06-08	The IN point on the player VTR side for the loading operation is wrong.
06-09	The OUT point on the player VTR side for the loading operation is wrong.
06-10	The IN point on the recorder VTR side for the loading operation is wrong.
06-11	The OUT point on the recorder VTR side for the loading operation is wrong.
06-12	The multi-event memory cannot be entered as the edit data has not been completely recorded.
06-13	Cannot be entered as the multi-event memory is full.
06-14	The host can not be operated for more than 3 seconds in the SAVE mode.

DISPLAY	A/B ROLL EDITING ERROR
07-00	The wrong VTR has been selected.
07-01	Audio split recording cannot be performed.
07-02	The IN point on the A roll is larger than the OUT point on the A roll.
07-03	The recorder has not been connected.
07-04	The P-VTR with the A roll has not been connected.
07-05	The P-VTR with the B roll has not been connected.
07-06	The edit data has not been recorded completely.
07-08	The switcher AG-SW800 has not been connected.
07-09	The control switch on the switcher AG-SW800 has been set to "LOCAL".
07-12	The mode is not A/B roll editing.
07-14	TAKE cannot be performed during the preroll.
08-02	Cannot be entered as the edit is now in progress.
08-03	The IN point on the A roll is equal to or larger than the OUT point on the A roll.
08-04	The IN point on the B roll is equal to or larger than the OUT point on the B roll.
08-05	No change or recording can be done during review.
09-00	The duration on the A roll is equal to or larger than the duration of the roll on the recorder VTR side.
09-01	The duration on the B roll is equal to or larger than the duration of the roll on the recorder VTR side.
09-02	The servo on the A roll is disturbed.
09-03	The servo on the B roll is disturbed.
09-08	The VTR on the A roll side cannot be controlled.
09-09	The VTR on the B roll side cannot be controlled.
10-00	Unspecified error

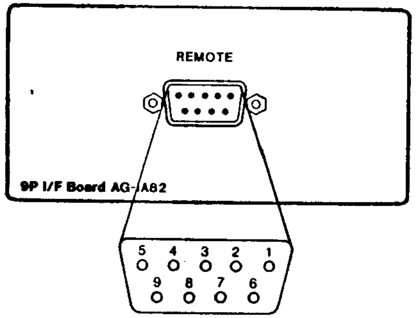
- **AUX CONTROL Connector (15P)**


8 7 6 5 4 3 2 1
15 14 13 12 11 10 9

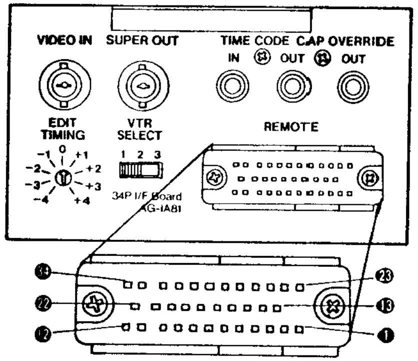
Pin No.	Signal
1	GPI 1
2	GPI 1
3	GPI 2
4	GPI 2
5	GPI 3
6	GPI 3
7~15	——

Interface Board Connector

9P Interface Board


REMOTE
9P I/F Board AG-IA82
5 4 3 2 1
9 8 7 6

34P Interface Board


VIDEO IN
SUPER OUT
TIME CODE
IN
OUT
CAP OVERRIDE
OUT
EDIT TIMING
-1 0 +1
-2 +2
-3 +3
-4 +4
VTR SELECT
1 2 3
34P I/F Board AG-IA81
REMOTE
㉝
㉒
⑫
㉓
⑬
❶

9P REMOTE Connector

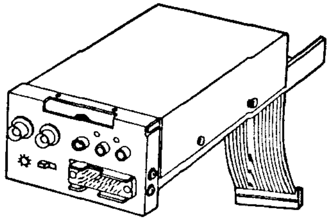
Pin No.	Signal
1	GND
2	RECEIVE A
3	TRANSMIT B
4	TRANSMIT COMMON
5	SPARE
6	RECEIVE COMMON
7	RECEIVE B
8	TRANSMIT A
9	GND

34P REMOTE Connector

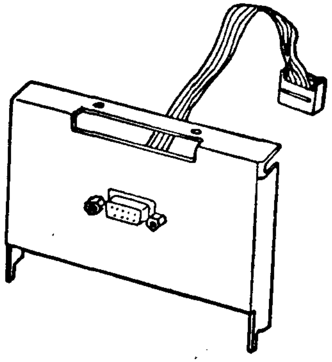
Pin No.	Signal	Pin No.	Signal
1	REC SWITCH	18	CONTROL PULSE OUT
2	PLAY SWITCH	19	REMOTE 19
3	FF SWITCH	20	
4	REW SWITCH	21	
5	STOP SWITCH	22	INSERT CH1
6		23	REC HOLD
7	PAUSE SWITCH	24	PLAY HOLD
8		25	FF HOLD
9	CUT IN SWITCH	26	REW HOLD
10	NOT SOURCE PLAY	27	INSERT CH2
11	SERVO LOCK	28	
12	GND	29	PAUSE HOLD
13		30	REMOTE 30
14	REVERSE COUNT	31	CUT IN HOLD
15	CUT OUT SWITCH	32	INSERT VIDEO
16	EDIT SWITCH	33	REMOTE 33
17	REVERSE	34	+12V

Optional Interface Boards

AG-IA81
34P Interface Board



AG-IA82
9P Interface Board



The VTRs listed in the table below can be connected to this unit if their corresponding Interface Boards are installed in the unit slot.

* Please consult qualified service personnel to install the interface board.

Interface Board	MODEL NO.	VTR
9 Pin Interface Board	AG-IA82	• AU-620 • AU-650B • AU-630 • AU-640
34 Pin Interface Board	AG-IA81	• AG-7500 • AG-6500 • NV-9600 • AG-7510 • NV-9240

- **THIS APPARATUS MUST BE EARTHED.**

To ensure safe operation the three-core lead supplied (not for U.K. model) must be connected only into a standard three-pin power point which is effectively earthed through the normal household wiring.
Extension cords used with the equipment must be three-core and be correctly wired to provide connection to earth. Wrongly wired extension cords are a major cause of fatalities.
The fact that the equipment operates satisfactorily does not imply that the power point is earthed and that the installation is completely safe. For your safety, if in any doubt about the effective earthing of the power point, consult a qualified electrician.

- **DO NOT REMOVE PANEL COVER BY UNSCREWING.**

To reduce the risk of electric shock, do not remove cover. No user serviceable parts inside. Refer servicing to qualified service personnel.

CAUTION:

TO REDUCE THE RISK OF FIRE OR SHOCK HAZARD, REFER INSTALLATION OF THE INTERFACE BOARD TO QUALIFIED SERVICE PERSONNEL.

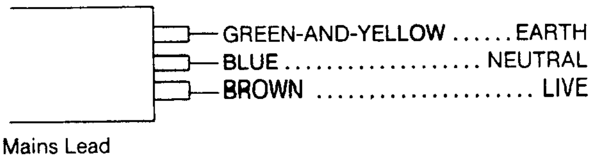
CAUTION:

TO REDUCE THE RISK OF FIRE OR SHOCK HAZARD AND ANNOYING INTERFERENCE, USE THE RECOMMENDED ACCESSORIES ONLY.

- **AC POWER CORD CONNECTION (AG-A800-B only)**

The wires in the mains lead for this apparatus are coloured in accordance with the following code.

Important


GREEN-AND-YELLOW ...... EARTH
BLUE .... NEUTRAL
BROWN .... LIVE
Mains Lead

As the colours of the wires in the mains lead of this apparatus may not correspond with the coloured markings identifying the terminals in your plug proceed as follows:
The wire which is coloured GREEN-AND-YELLOW must be connected to the terminal in the plug which is marked by the letter E or by the safety earth symbol ⏚ or coloured GREEN or GREEN-AND-YELLOW.
The wire which is coloured BLUE must be connected to the terminal which is marked with the letter N or coloured black.
The wire which is coloured BROWN must be connected to the terminal which is marked with the letter L or coloured red.

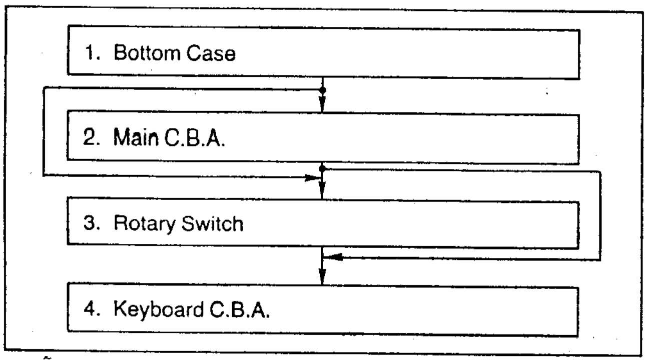
WARNING: TO REDUCE THE RISK OF FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS EQUIPMENT TO RAIN OR MOISTURE.

DISASSEMBLY PROCEDURES

1. DISASSEMBLY FLOW CHART

This flowchart indicates disassembly steps of the cabinet parts and the Circuit Boards in order to find the necessary items for servicing.
When reassembling, perform the steps in the reverse order.

<CONTROL PANEL SECTION>


1. Bottom Case
2. Main C.B.A.
3. Rotary Switch
4. Keyboard C.B.A.

<I/F UNIT>

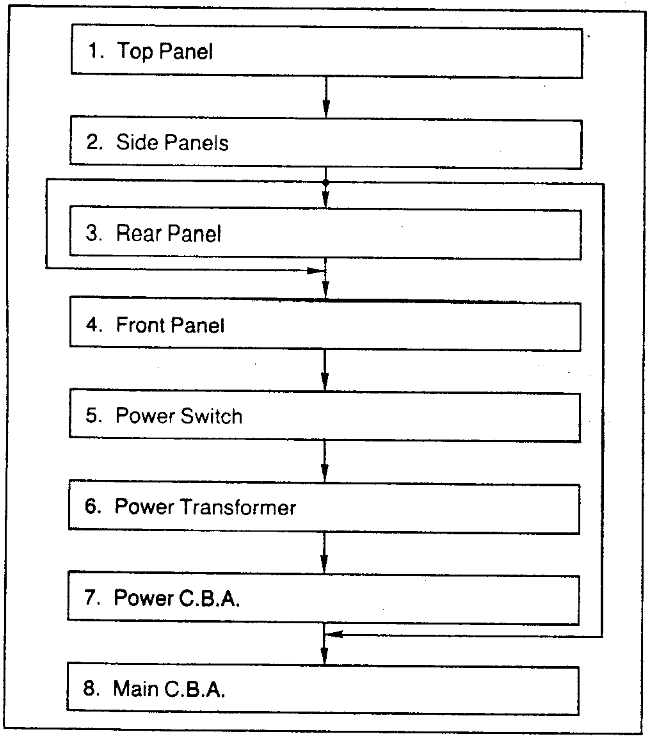

1. Top Panel
2. Side Panels
3. Rear Panel
4. Front Panel
5. Power Switch
6. Power Transformer
7. Power C.B.A.
8. Main C.B.A.

Figure D1

2. DETAILED DISASSEMBLY METHOD (CONTROL PANEL SECTION)

2–1. Removal of the Bottom Case

1. Remove 9 screws (A) and 2 screws (B), and remove the Bottom Case.

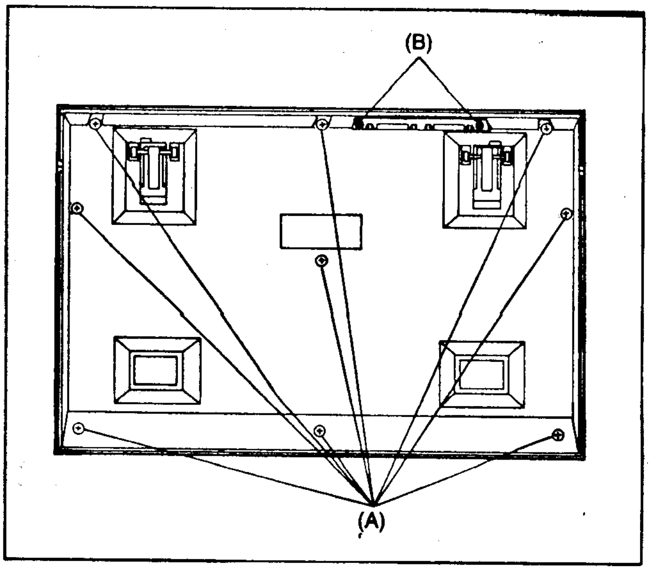


Figure D2

2–2. Removal of the Main C.B.A.

1. Push to loose 3 hooks in the direction of the arrows, and disconnect 15 connectors (CN6103~CN6117).
2. Hold up the Main C.B.A. in the direction of the arrow, pull out the Main C.B.A. from 3 ribs carefully.

*Note: When assembling, be sure not to let the wires of the connectors get on the hooks.

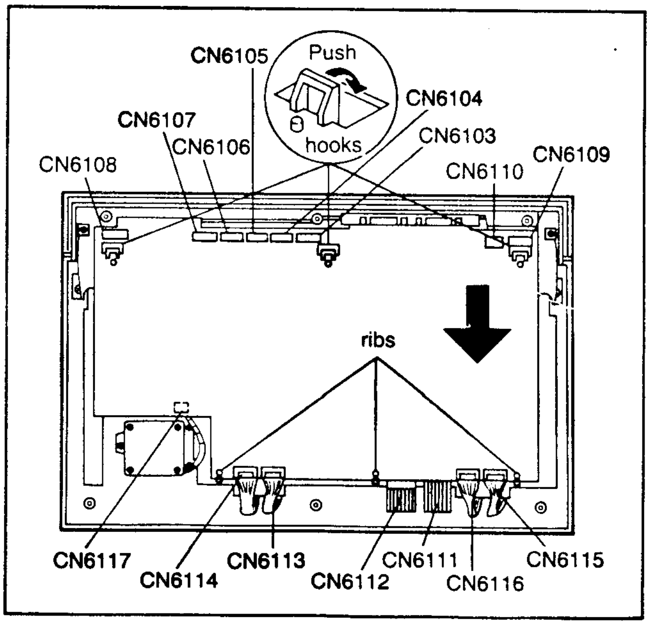

CN6105
Push
CN6104
CN6107
CN6106
hooks
CN6103
CN6108
CN6110
CN6109
ribs
CN6117
CN6114
CN6113
CN6112
CN6111
CN6116
CN6115

Figure D3

2-3. Removal of the Rotary Switch

1. Pull out the Search Dial Knob.
2. Remove 3 screws (C).

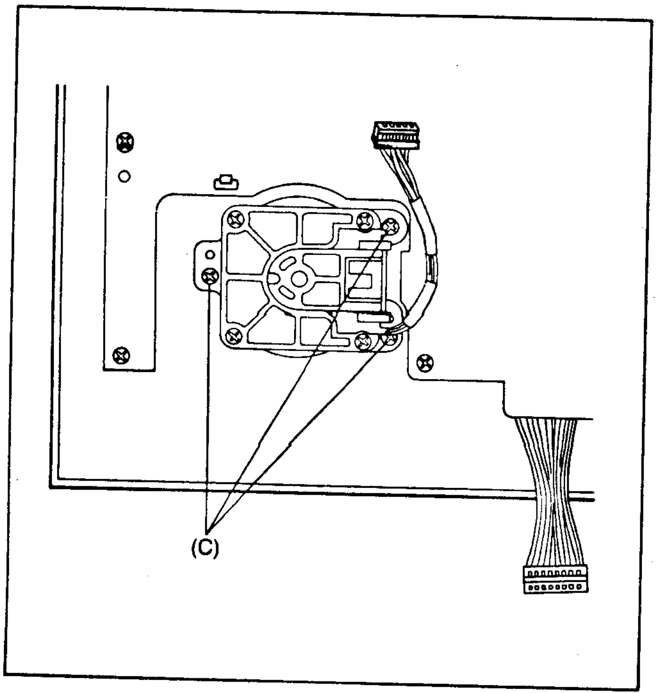


Figure D4

2-4. Removal of the Keyboard C.B.A.

1. Remove 4 screws (D) to remove the Display Unit.

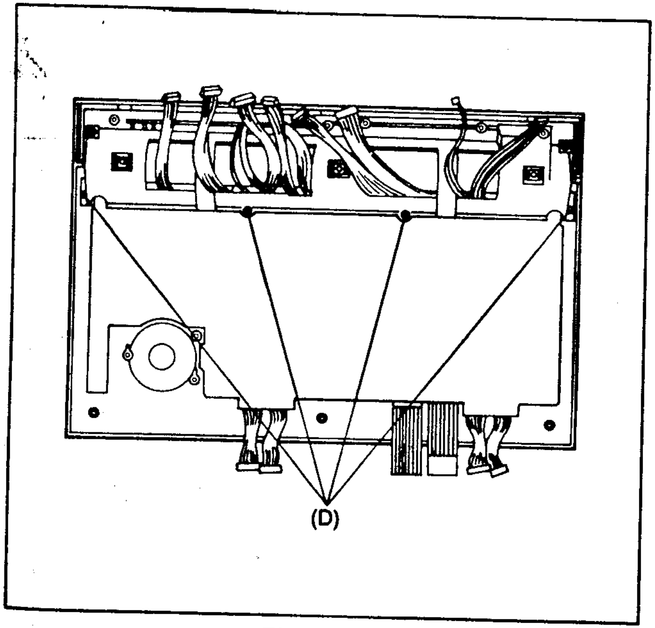


Figure D5

2. Remove 12 screws (E), and push to loose 26 hooks in the direction of the arrows to remove the Keyboard C.B.A.

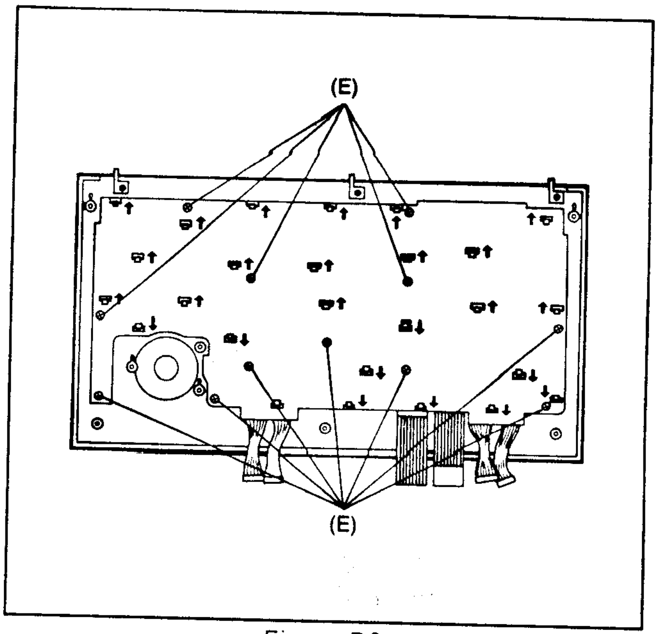


Figure D6

2-5. Removal of assemble the unit.

1. Reverse the procedure above.

*Note: Be sure to place the wires right in position.

3. DETAILED DISASSEMBLY METHOD (I/F UNIT)

3–1. Removal of the Top Panel

1. Loosen 4 screws (A) on the Top Panel. (Screws stay on the Top Panel.)

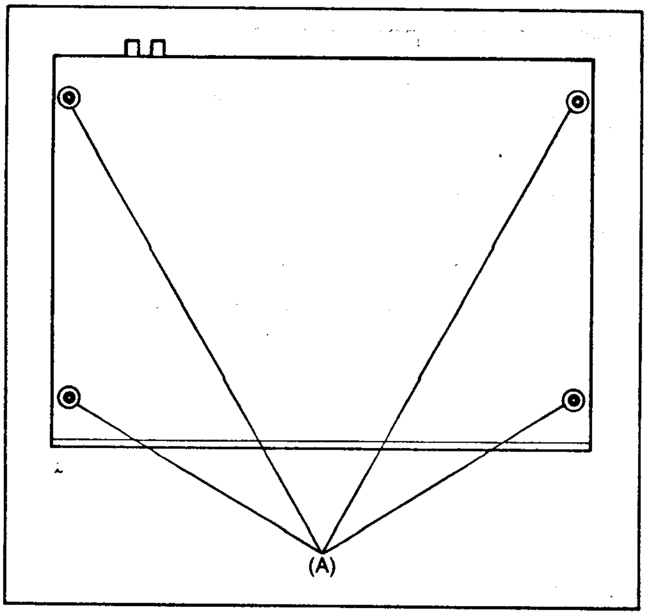


Figure D7

3–2. Removal of the Side Panels

1. Remove 4 screws (B) on the side Panels.
2. Remove both Side Panels from the unit.

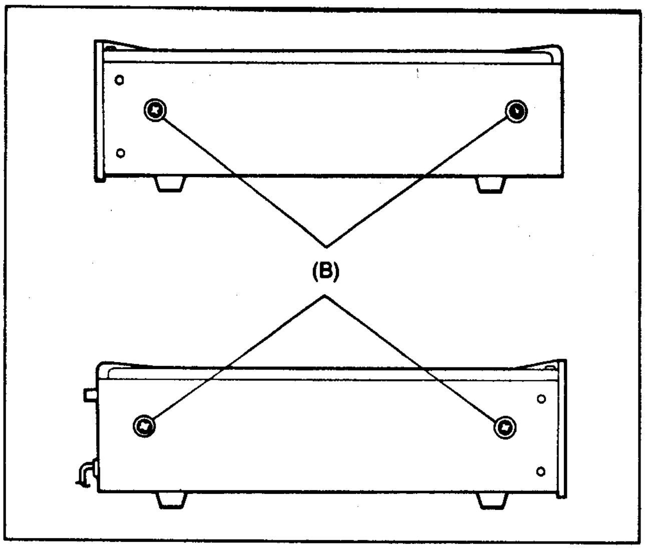


Figure D8

3–3. Removal of the Rear Panel.

1. Disconnect 6 connectors(CN6501, CN6502, CN6503, CN6504, CN6512).
2. Remove the Lead Wires from the Cord Clamp.

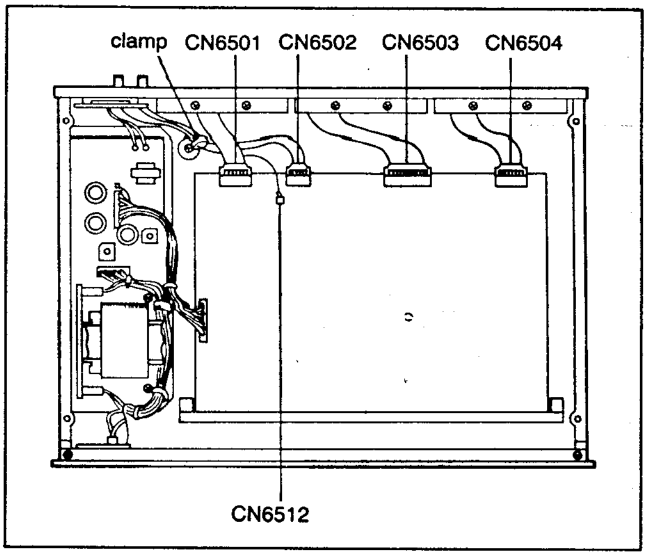


Figure D9

3. Remove 4 screws (C) on the Rear Panel.

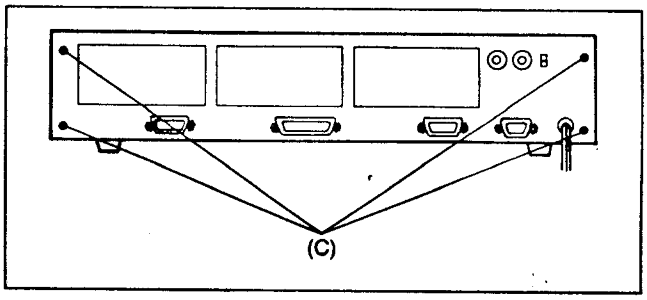


Figure D10

3–4. Removal of the Front Panel.

1. Remove 4 screws (D) and the screw (E).

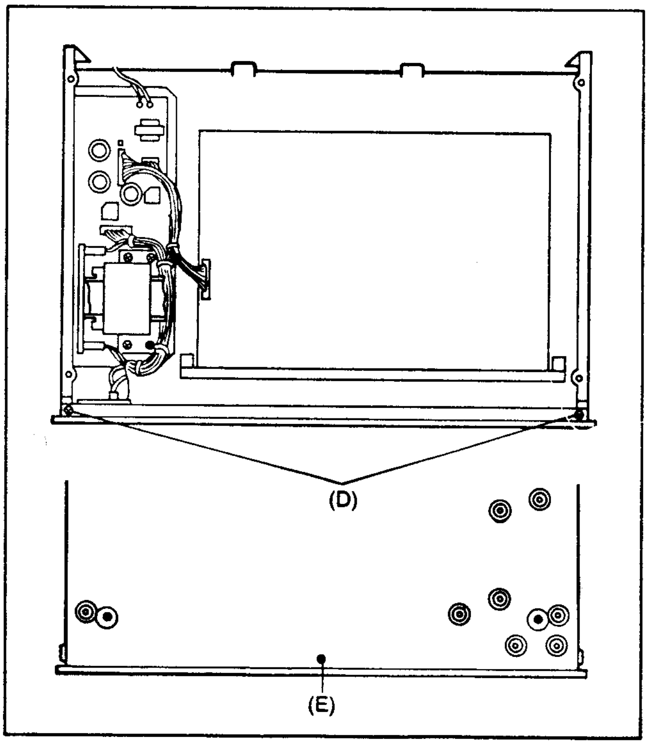


Figure D11

3–5. Removal of the Power Switch.

1. Unscrew 1 screw (A), Remove the Transformer Cover.
2. Remove 2 screws (F).
3. Remove the Lead Wires from 7 Cord Clamp.
4. Disconnect 3 connectors(CN1605, CN1906, CN6801).

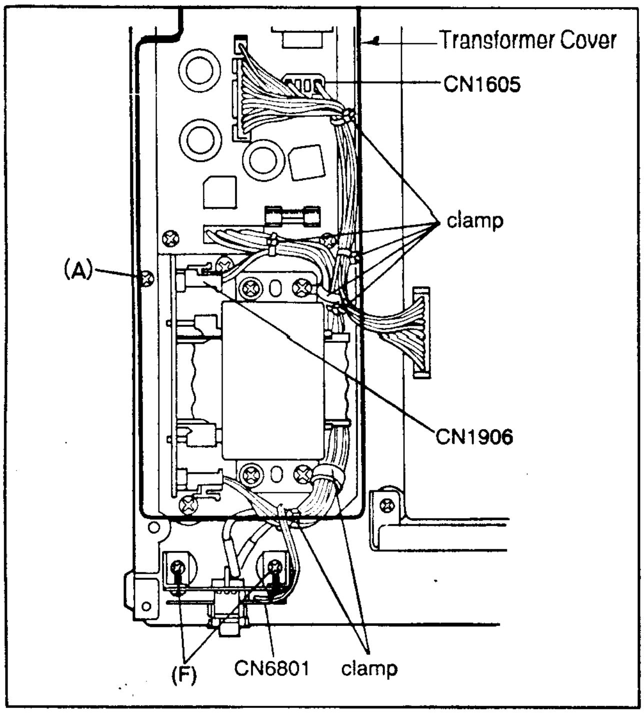

Transformer Cover
CN1605
clamp
(A)
CN1906
(F)
CN6801
clamp

Figure D12

3–6. Removal of the Power Transformer

1. Remove 2 scrwes (G) and 2 screws (H).
2. Disconnect the connector (CN1907).

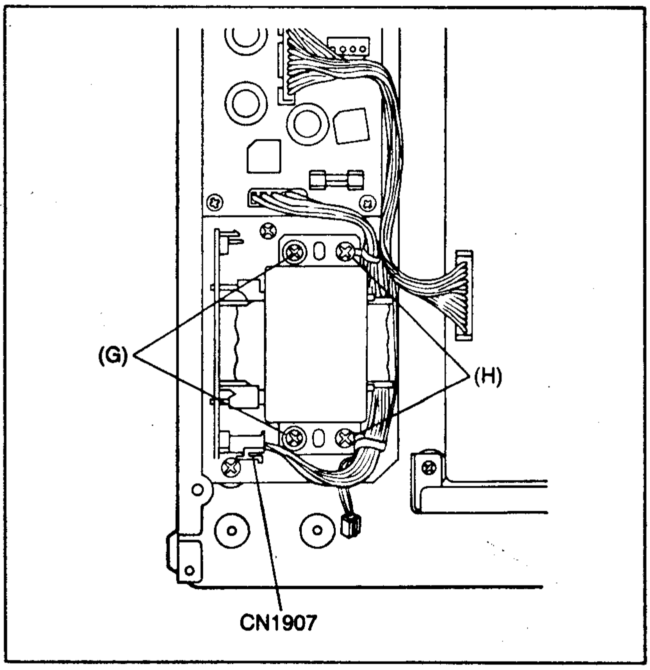


Figure D13

3–7. Removal of the Power C.B.A.

1. Remove 3 screws (I) and disconnect the connector (CN6511) to remove the Power Unit.
2. Remove 4 screws (J) and 3 screws (K).

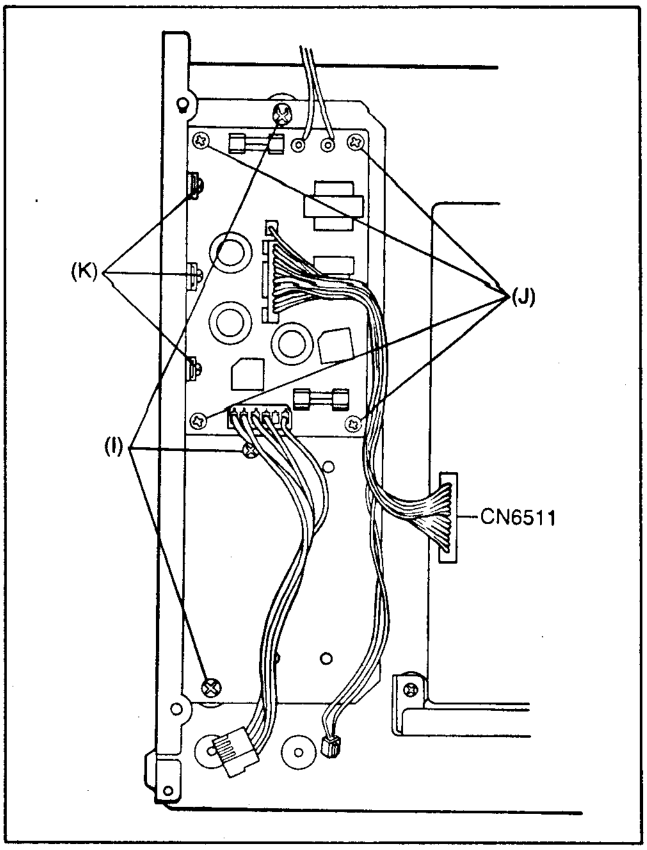


Figure D14

3–8. Removal of the Main C.B.A.

1. Remove 7 screws (L).

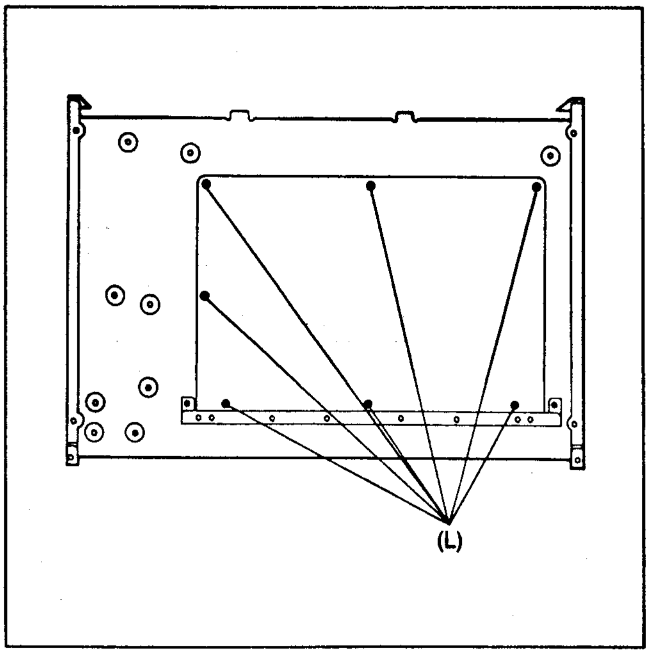


Figure D15

ELECTRICAL ADJUSTMENT PROCEDURES

This section provides complete electrical adjustment procedures which may be required for electronic circuits of this Editing Controller (AG−A800).

1. TEST & SERVICE EQUIPMENT

To perform the electrical adjustments completely, the following equipments is required.

1. VTVM(Vacuum Tube Volt Meter) or DVM (Digital Volt Meter)
   Voltage Range: 0.001−50V
2. Dual−Trace Oscilloscope
   Voltage Range: 0.005−50V/div.
   Frequency Range: DC−20MHz
   Probes: 10:1 or 1:1
3. Frequency Counter
   Frequency Range: 0−10MHz
4. Color Monitor TV
5. Plastic Tip Driver

2. ADJUSTMENT PROCEDURES

2-1. HOW TO READ THE ADJUSTMENT PROCEDURES

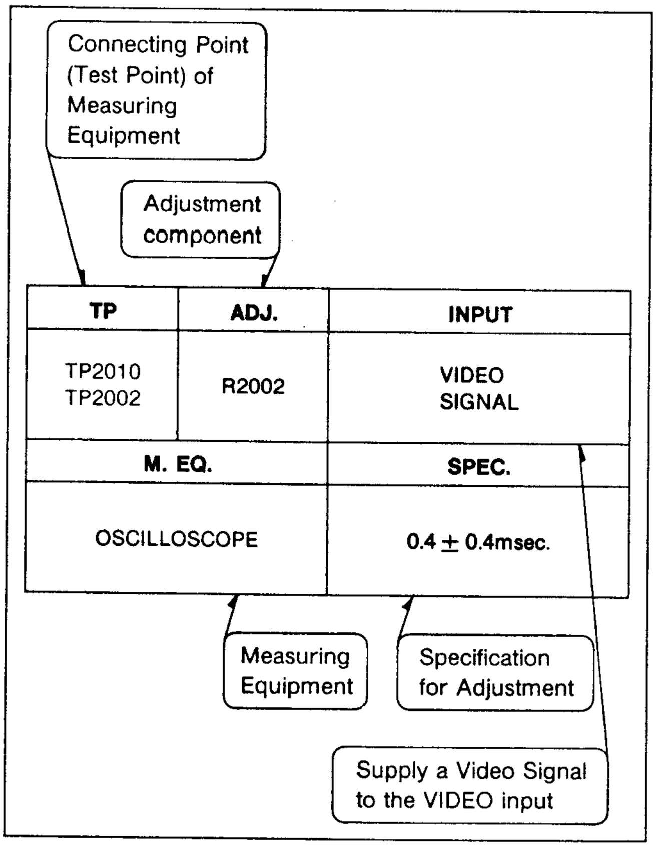

Connecting Point (Test Point) of Measuring Equipment
Adjustment component
TP
ADJ.
INPUT
TP2010
TP2002
R2002
VIDEO SIGNAL
M. EQ.
SPEC.
OSCILLOSCOPE
0.4 ± 0.4msec.
Measuring Equipment
Specification for Adjustment
Supply a Video Signal to the VIDEO input

Figure E1

2-2. KEY BOARD SECTION

2−2−1. +5V ADJUSTMENT

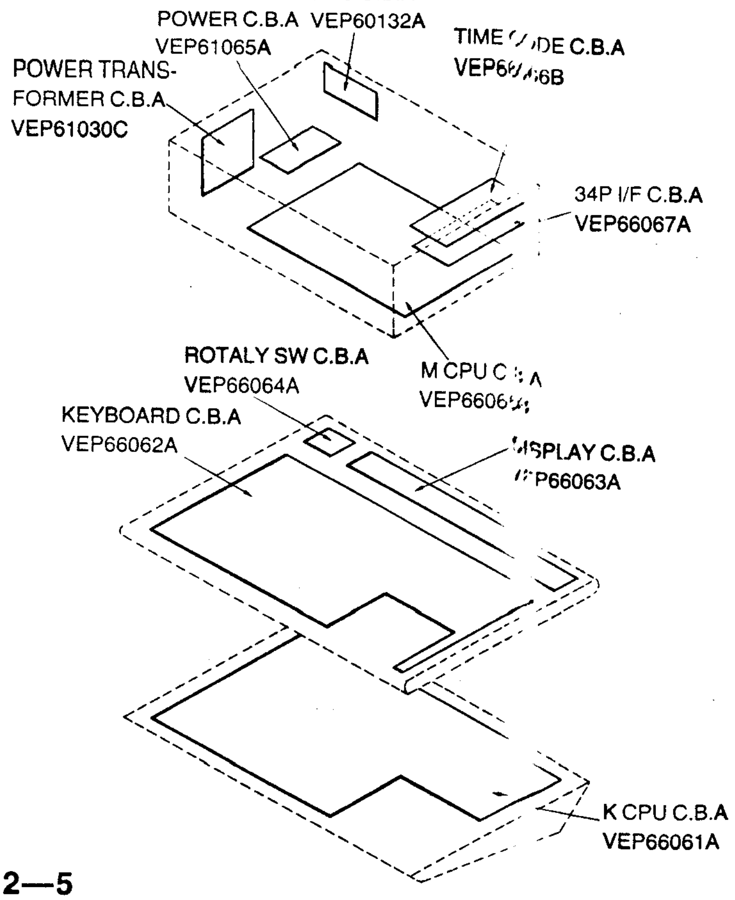
TP	ADJ.	INPUT
TP109 (HOT) TP101 (GND)	VR101	
M. EQ.		SPEC.
VTVM or DVM		+5.00±0.25 V

2−2−2. BUZZER ADJUSTMENT

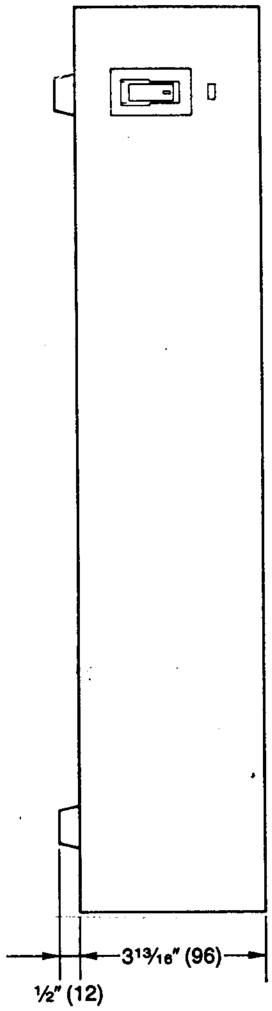
TP	ADJ.	INPUT
	VR102	
M. EQ.		SPEC.

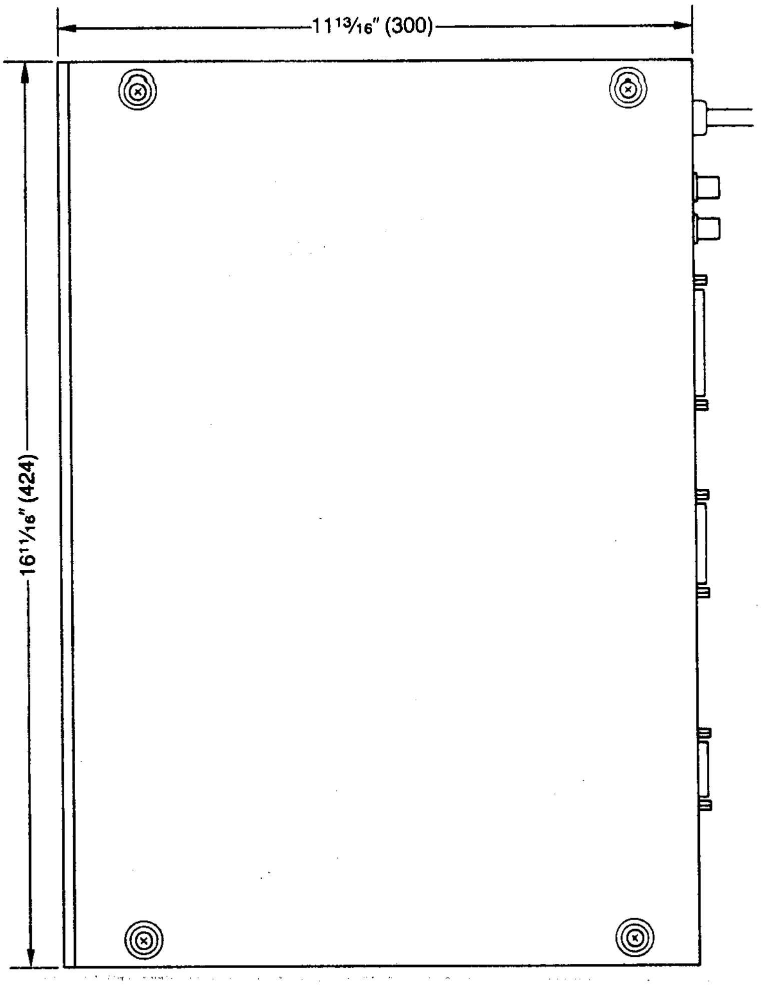
1. Connect a jumper between pin 24 and 26 of IC115 in the K CPU C.B.A.
2. Adjust VR102 so that the sound of buzzer is clearly.
3. Remove a jumper.

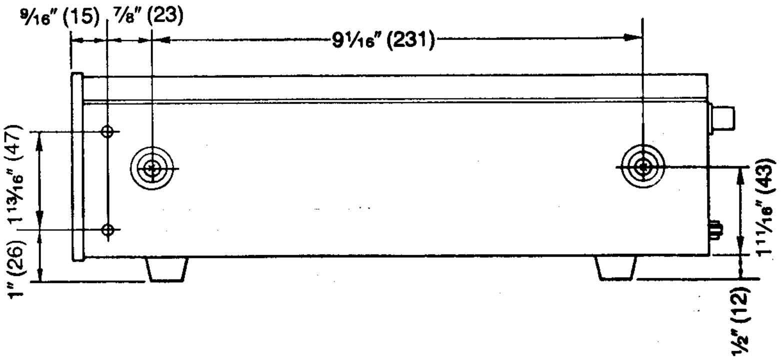
CIRCUTI BOARD LAYOUT


BNC C.B.A
VEP60132A
POWER C.B.A
VEP61065A
TIME CODE C.B.A
VEP6[illegible]6B
POWER TRANS-FORMER C.B.A
VEP61030C
34P I/F C.B.A
VEP66067A
ROTALY SW C.B.A
VEP66064A
M CPU C.B.A
VEP6606[illegible]
KEYBOARD C.B.A
VEP66062A
DISPLAY C.B.A
VEP66063A
K CPU C.B.A
VEP66061A

DIMENSIONS

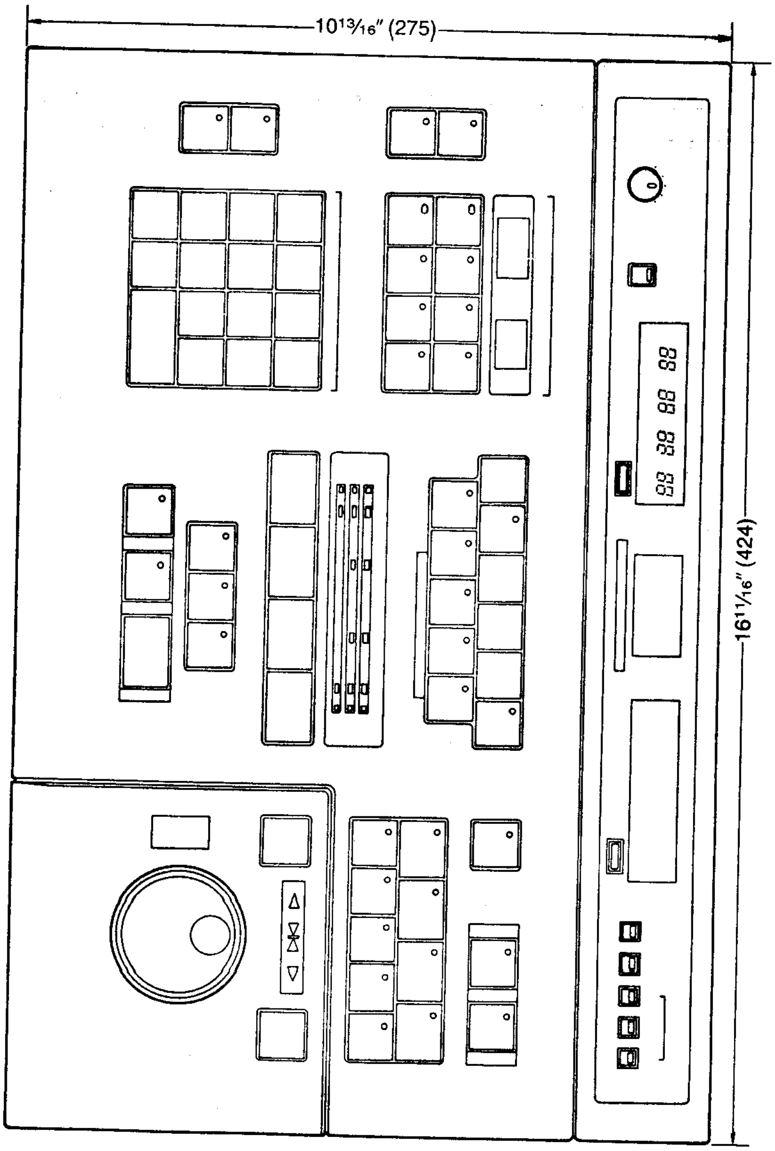

3 13/16″ (96)
1/2″ (12)

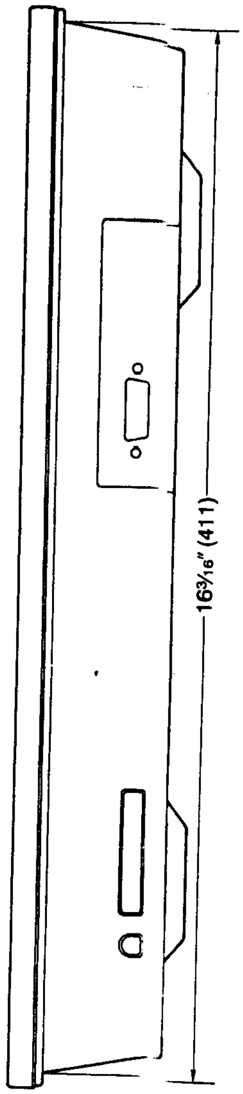

11 13/16″ (300)
16 11/16″ (424)

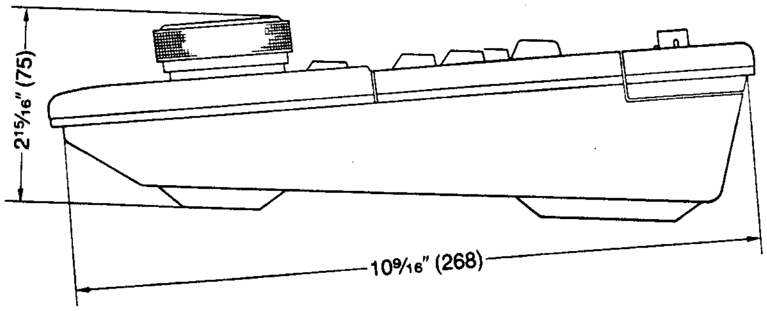

9/16″ (15)
7/8″ (23)
9 1/16″ (231)
1 13/16″ (47)
1″ (26)
1 11/16″ (43)
1/2″ (12)

Unit: inch (mm)

DIMENSIONS

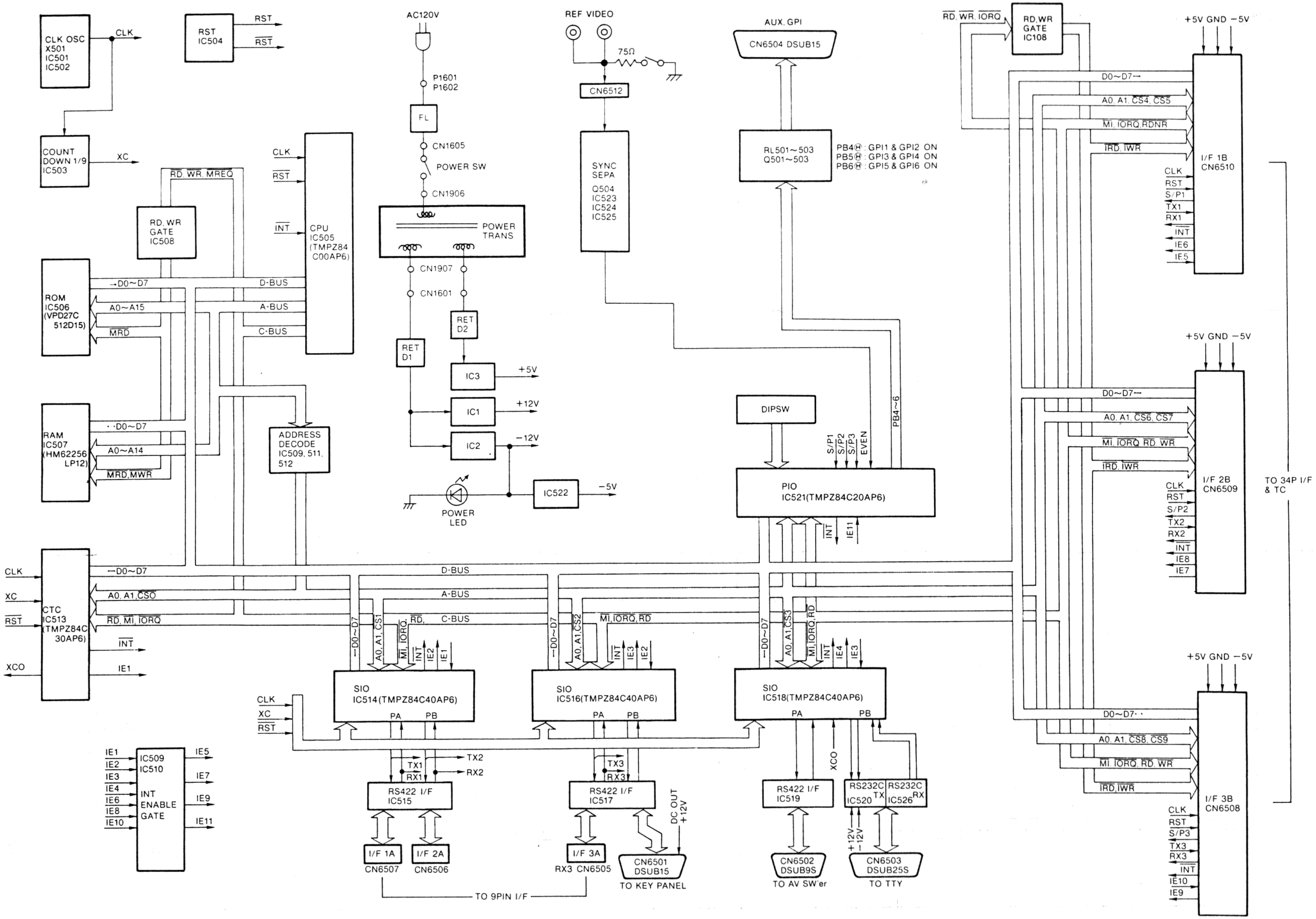

10¹³⁄₁₆" (275)
16¹¹⁄₁₆" (424)
88 88 88 88




2¹⁵⁄₁₆" (75)
10⁹⁄₁₆" (268)

Unit: inch (mm)

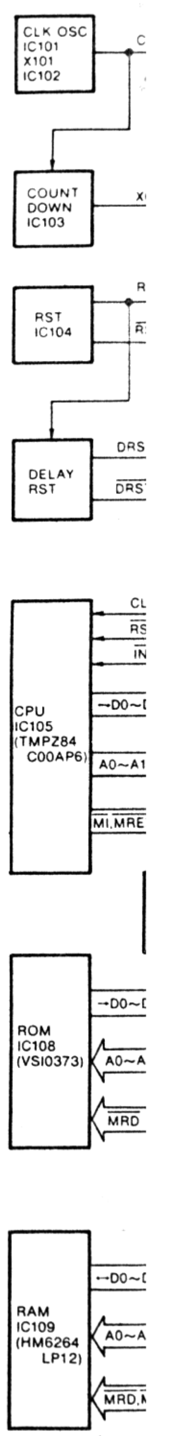
M CPU BLOCK DIAGRAM



CLK OSC X501 IC501 IC502
CLK
RST IC504
RST
RST
COUNT DOWN 1/9 IC503
XC
RD, WR, MREQ
RD, WR GATE IC508
CLK
RST
INT
CPU IC505 (TMPZ84 C00AP6)
D-BUS
A-BUS
C-BUS
ROM IC506 (VPD27C 512D15)
D0~D7
A0~A15
MRD
RAM IC507 (HM62256 LP12)
D0~D7
A0~A14
MRD, MWR
ADDRESS DECODE IC509, 511, 512
CLK
XC
RST
XCO
CTC IC513 (TMPZ84C 30AP6)
D0~D7
A0, A1, CS0
RD, MI, IORQ
INT
IE1
IE1
IE2
IE3
IE4
IE6
IE8
IE10
IC509 IC510
INT ENABLE GATE
IE5
IE7
IE9
IE11
AC120V
P1601 P1602
FL
CN1605
POWER SW
CN1906
POWER TRANS
CN1907
CN1601
RET D2
RET D1
IC3
+5V
IC1
+12V
IC2
−12V
IC522
−5V
POWER LED
REF VIDEO
75Ω
CN6512
SYNC SEPA Q504 IC523 IC524 IC525
AUX. GPI
CN6504 DSUB15
RL501~503 Q501~503
PB4Ⓗ: GPI1 & GPI2 ON
PB5Ⓗ: GPI3 & GPI4 ON
PB6Ⓗ: GPI5 & GPI6 ON
DIPSW
S/P1
S/P2
S/P3
EVEN
PB4~6
PIO IC521(TMPZ84C20AP6)
INT
IE11
D-BUS
A-BUS
C-BUS
D0~D7
A0, A1, CS1
MI, IORQ, RD
INT
IE2
IE1
SIO IC514(TMPZ84C40AP6)
PA
PB
CLK
XC
RST
TX1
RX1
TX2
RX2
RS422 I/F IC515
I/F 1A CN6507
I/F 2A CN6506
TO 9PIN I/F
D0~D7
A0, A1, CS2
MI, IORQ, RD
INT
IE3
IE2
SIO IC516(TMPZ84C40AP6)
PA
PB
TX3
RX3
RS422 I/F IC517
I/F 3A RX3 CN6505
DC OUT +12V
CN6501 DSUB15
TO KEY PANEL
D0~D7
A0, A1, CS3
MI, IORQ, RD
INT
IE4
IE3
SIO IC518(TMPZ84C40AP6)
PA
PB
XCO
RS422 I/F IC519
CN6502 DSUB9S
TO AV SW'er
RS232C TX IC520
RS232C RX IC526
+12V
−12V
CN6503 DSUB25S
TO TTY
RD, WR, IORQ
RD, WR GATE IC108
+5V GND −5V
D0~D7
A0, A1, CS4, CS5
MI, IORQ, RDNR
IRD, IWR
CLK
RST
S/P1
TX1
RX1
INT
IE6
IE5
I/F 1B CN6510
+5V GND −5V
D0~D7
A0, A1, CS6, CS7
MI, IORQ, RD, WR
IRD, IWR
CLK
RST
S/P2
TX2
RX2
INT
IE8
IE7
I/F 2B CN6509
TO 34P I/F & TC
+5V GND −5V
D0~D7
A0, A1, CS8, CS9
MI, IORQ, RD, WR
IRD, IWR
CLK
RST
S/P3
TX3
RX3
INT
IE10
IE9
I/F 3B CN6508

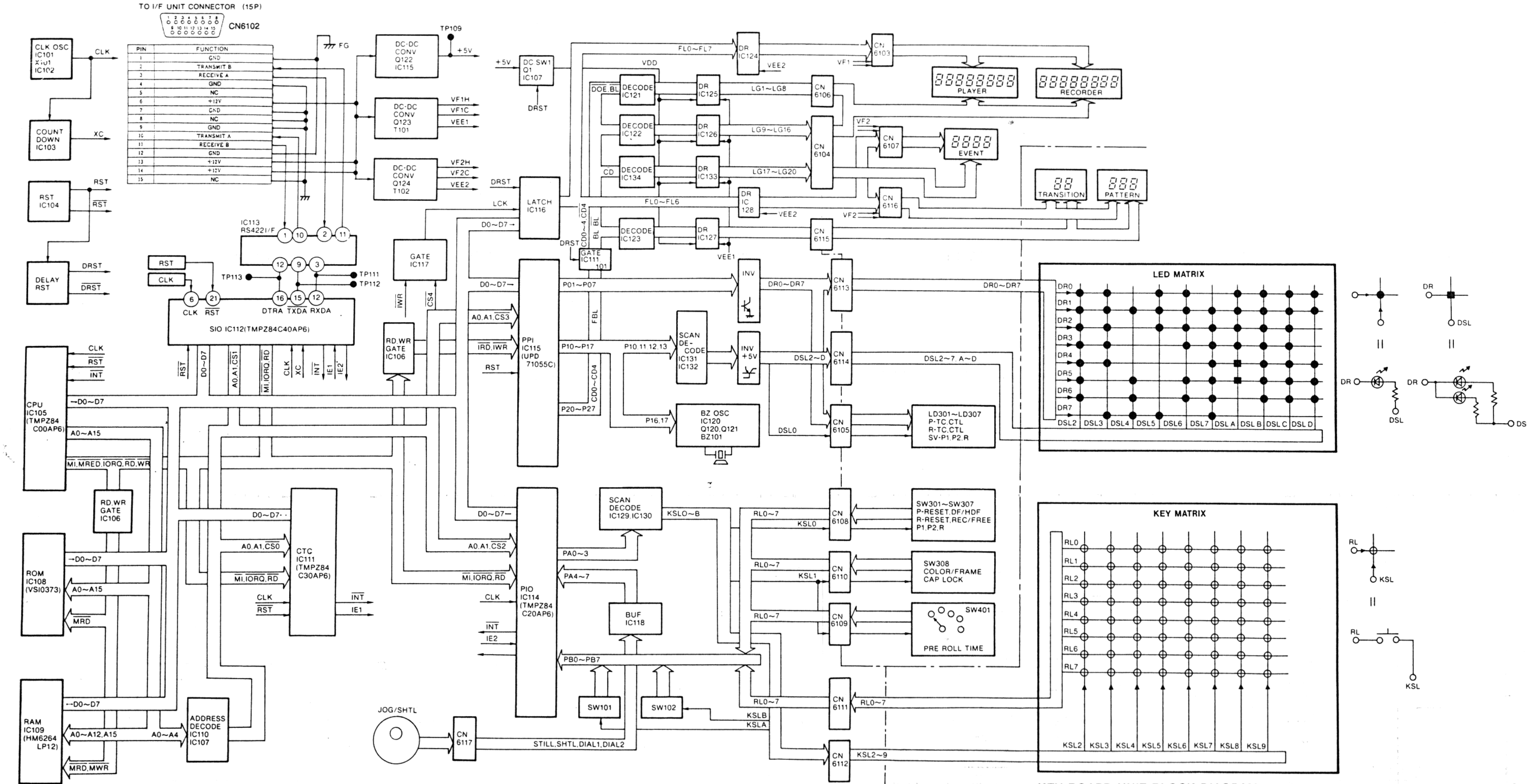
I/F UNIT
BLOCK DIAGRAM

K CP



CLK OSC IC101 X101 IC102
COUNT DOWN IC103
RST IC104
DELAY RST
DRS
CPU IC105 (TMPZ84 C00AP6)
D0~D
A0~A1
MI, MRE
ROM IC108 (VSI0373)
D0~D
A0~A
MRD
RAM IC109 (HM6264 LP12)
D0~D
A0~A
MRD

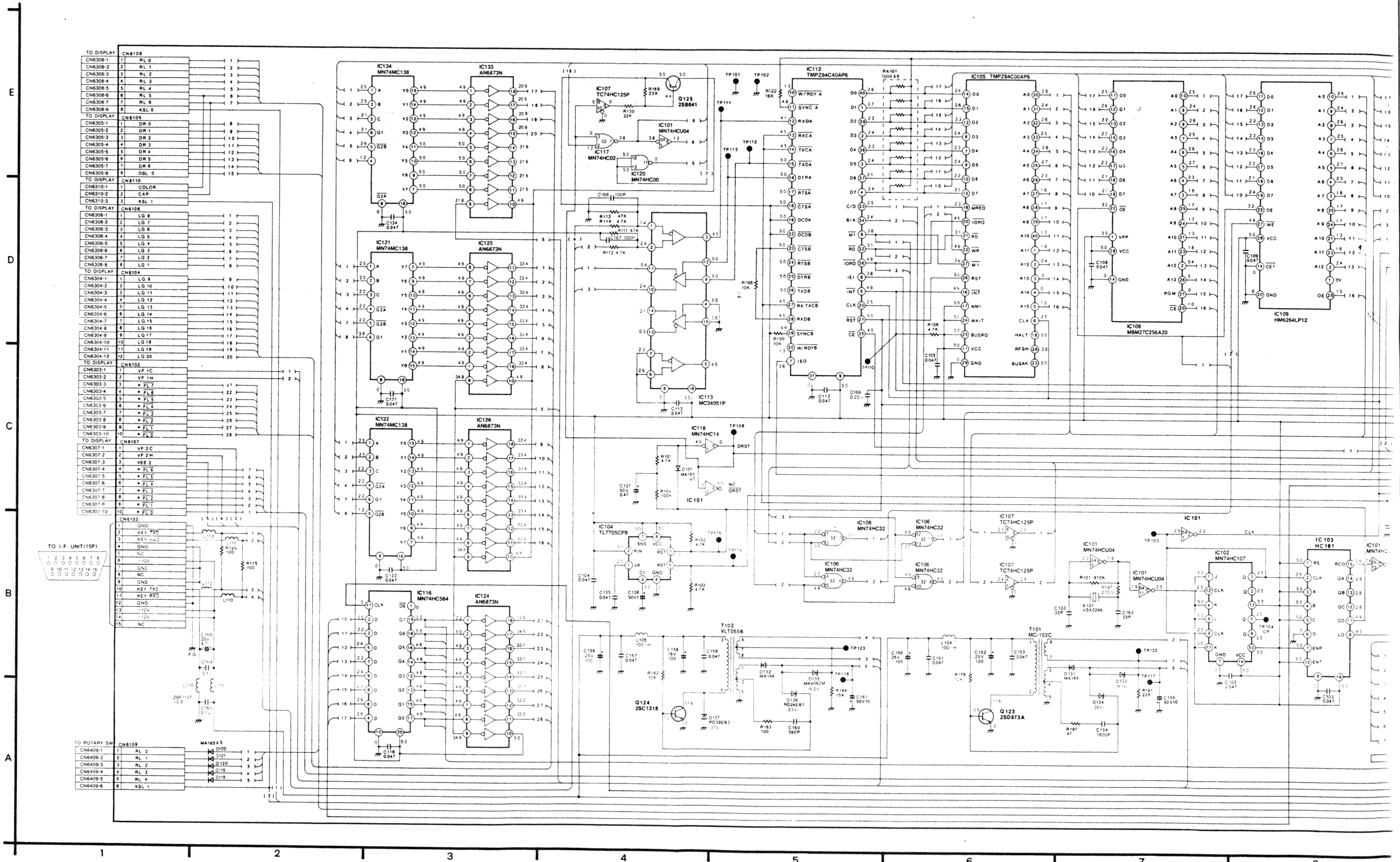
K CPU BLOCK DIAGRAM


TO I/F UNIT CONNECTOR (15P)
CN6102
CLK OSC IC101 X101 IC102
CLK
COUNT DOWN IC103
XC
RST IC104
RST
DELAY RST
DRST
FG
TP109
DC-DC CONV Q122 IC115
+5V
DC-DC CONV Q123 T101
VF1H
VF1C
VEE1
DC-DC CONV Q124 T102
VF2H
VF2C
VEE2
IC113 RS422I/F
TP111
TP112
TP113
SIO IC112(TMPZ84C40AP6)
CLK
RST
DTRA
TXDA
RXDA
D0~D7
A0,A1,CS1
MI,IORQ,RD
XC
INT
IE1
IE2
CPU IC105 (TMPZ84 C00AP6)
A0~A15
MI,MRED,IORQ,RD,WR
RD,WR GATE IC106
ROM IC108 (VSI0373)
MRD
RAM IC109 (HM6264 LP12)
A0~A12,A15
A0~A4
MRD,MWR
ADDRESS DECODE IC110 IC107
CTC IC111 (TMPZ84 C30AP6)
A0,A1,CS0
MI,IORQ,RD
GATE IC117
IWR
CS4
RD,WR GATE IC106
LATCH IC116
DRST
LCK
PPI IC115 (UPD 71055C)
A0,A1,CS3
IRD,IWR
P01~P07
P10~P17
P20~P27
P10,11,12,13
P16,17
FBL
CD0~CD4
CD0~4,CD4
BL,BL
GATE IC111,101
DC SW1 Q1 IC107
VDD
DOE,BL
CD
DECODE IC121
DECODE IC122
DECODE IC134
DECODE IC123
DR IC125
DR IC126
DR IC133
DR IC127
DR IC124
DR IC 128
FL0~FL7
FL0~FL6
LG1~LG8
LG9~LG16
LG17~LG20
VEE2
VEE1
VF1
VF2
CN 6103
CN 6106
CN 6104
CN 6107
CN 6116
CN 6115
88888888 PLAYER
88888888 RECORDER
8888 EVENT
88 TRANSITION
888 PATTERN
SCAN DE-CODE IC131 IC132
INV
INV +5V
DR0~DR7
DSL2~D
DSL2~7, A~D
DSL0
BZ OSC IC120 Q120,Q121 BZ101
CN 6113
CN 6114
CN 6105
LD301~LD307 P-TC.CTL R-TC.CTL SV-P1,P2,R
PIO IC114 (TMPZ84 C20AP6)
A0,A1,CS2
PA0~3
PA4~7
PB0~PB7
SCAN DECODE IC129,IC130
KSL0~B
BUF IC118
SW101
SW102
JOG/SHTL
CN 6117
STILL,SHTL,DIAL1,DIAL2
RL0~7
KSL0
KSL1
KSLB
KSLA
KSL2~9
CN 6108
CN 6110
CN 6109
CN 6111
CN 6112
SW301~SW307 P-RESET,DF/HDF R-RESET,REC/FREE P1,P2,R
SW308 COLOR/FRAME CAP LOCK
SW401
PRE ROLL TIME
LED MATRIX
DR0
DR1
DR2
DR3
DR4
DR5
DR6
DR7
DSL2
DSL3
DSL4
DSL5
DSL6
DSL7
DSL A
DSL B
DSL C
DSL D
DR
DSL
KEY MATRIX
RL0
RL1
RL2
RL3
RL4
RL5
RL6
RL7
KSL2
KSL3
KSL4
KSL5
KSL6
KSL7
KSL8
KSL9
RL
KSL
II

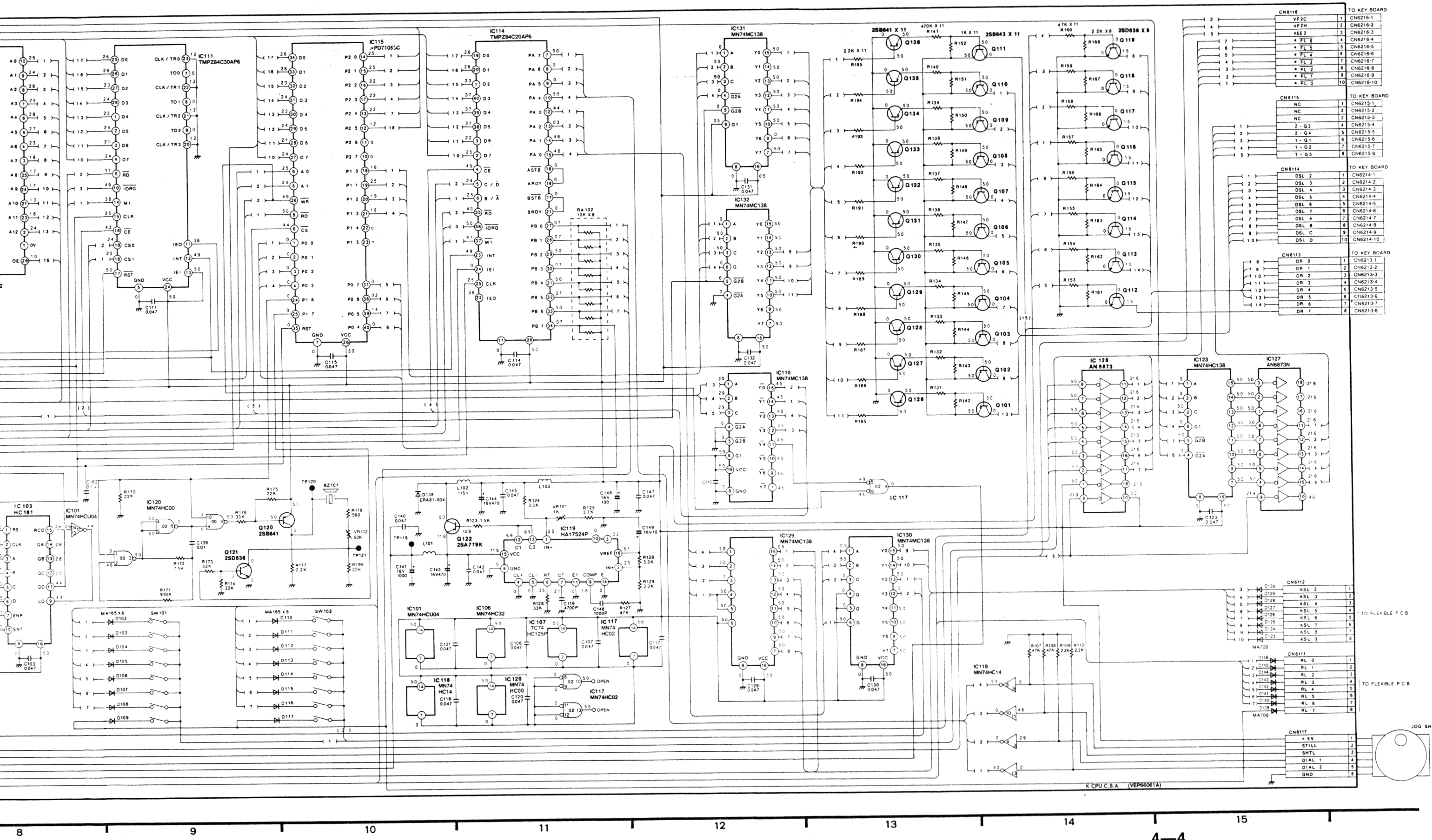
PIN	FUNCTION
1	GND
2	TRANSMIT B
3	RECEIVE A
4	GND
5	NC
6	+12V
7	GND
8	NC
9	GND
10	TRANSMIT A
11	RECEIVE B
12	GND
13	+12V
14	+12V
15	NC

KEY BOARD UNIT BLOCK DIAGRAM

K CPU SHEMATIC DIAGRAM

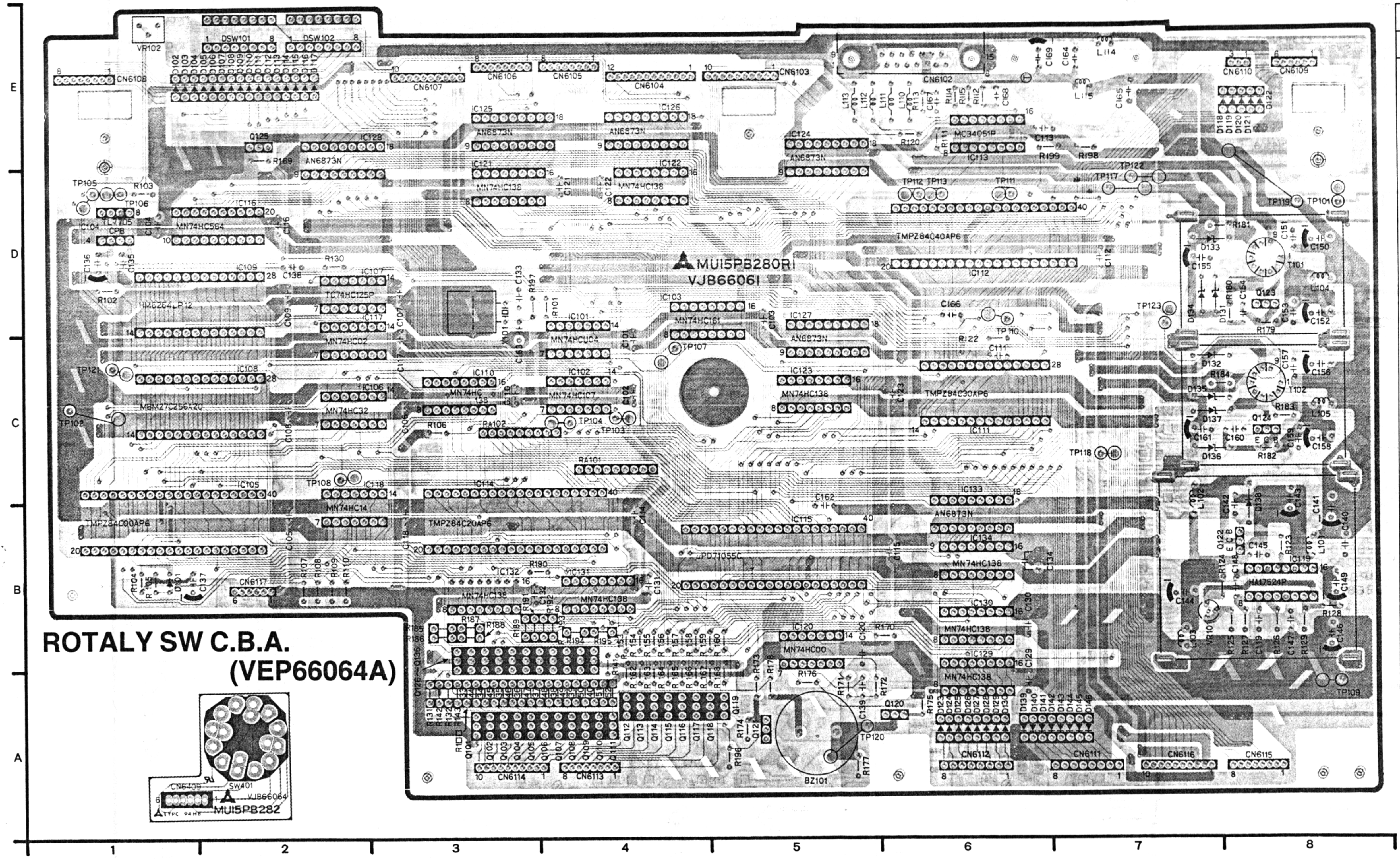

E
D
C
B
A
1
2
3
4
5
6
7
8
TO DISPLAY CN6108
TO DISPLAY CN6105
TO DISPLAY CN6110
TO DISPLAY CN6106
TO DISPLAY CN6104
TO DISPLAY CN6103
TO DISPLAY CN6107
CN6102
TO I-F UNIT(15P)
TO ROTARY SW CN6109
IC134 MN74MC138
IC133 AN6873N
IC121 MN74MC138
IC125 AN6873N
IC122 MN74MC138
IC126 AN6873N
IC116 MN74HC564
IC124 AN6873N
IC107 TC74HC125P
IC117 MN74HC02
IC101 MN74HCU04
IC120 MN74HC00
Q125 2SB641
IC113 MC34051P
IC112 TMPZ84C40AP6
RA101 100K×8
IC105 TMPZ84C00AP6
IC108 MBM27C256A20
IC109 HM6264LP12
IC118 MN74HC14
IC104 TL7705CPB
IC106 MN74HC32
IC107 TC74HC125P
IC101 MN74HCU04
IC102 MN74HC107
IC 103 HC 161
X101 VSX0286
T102 VLT0556
Q124 2SC1318
T101 MC-102C
Q123 2SD973A
TP101
TP102
TP111
TP113
TP112
TP110
TP108
TP105
TP106
TP103
TP104
TP123
TP118
TP122
TP117
DRST
CLK

NOTE: DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERING.
THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST, AND MAY BE
SLIGHTLY DIFFERENT OR AMENDED SINCE THIS DRAWING WAS PREPARED.


IC111 TMPZ84C30AP6
IC115 μPD71055C
IC114 TMPZ84C20AP6
IC131 MN74MC138
IC132 MN74MC138
IC110 MN74MC138
2SB641 X 11
470K X 11
1K X 11
2SB643 X 11
47K X 11
2.2K X 8
2SD636 X 8
2.2K X 11
Q101
Q102
Q103
Q104
Q105
Q106
Q107
Q108
Q109
Q110
Q111
Q112
Q113
Q114
Q115
Q116
Q117
Q118
Q119
Q126
Q127
Q128
Q129
Q130
Q131
Q132
Q133
Q134
Q135
Q136
RA102 10K X8
IC 128 AN 6873
IC123 MN74HC138
IC127 AN6873N
IC 117
TO KEY BOARD
CN6116
VF2C
VF2H
VEE 2
• FL 6
• FL 5
• FL 4
• FL 3
• FL 2
• FL 1
• FL 0
CN6216-1
CN6216-2
CN6216-3
CN6216-4
CN6216-5
CN6216-6
CN6216-7
CN6216-8
CN6216-9
CN6216-10
TO KEY BOARD
CN6115
NC
NC
NC
2 - G3
2 - G4
1 - G1
1 - G2
1 - G3
CN6215-1
CN6215-2
CN6215-3
CN6215-4
CN6215-5
CN6215-6
CN6215-7
CN6215-8
TO KEY BOARD
CN6114
DSL 2
DSL 3
DSL 4
DSL 5
DSL 6
DSL 7
DSL A
DSL B
DSL C
DSL D
CN6214-1
CN6214-2
CN6214-3
CN6214-4
CN6214-5
CN6214-6
CN6214-7
CN6214-8
CN6214-9
CN6214-10
TO KEY BOARD
CN6113
DR 0
DR 1
DR 2
DR 3
DR 4
DR 5
DR 6
DR 7
CN6213-1
CN6213-2
CN6213-3
CN6213-4
CN6213-5
CN6213-6
CN6213-7
CN6213-8
IC 103 HC161
IC101 MN74HCU04
IC120 MN74HC00
Q120 2SB641
Q121 2SD636
TP120
BZ101
TP121
VR102 50K
SW101
MA165 X8
SW102
MA165 X8
D138 ERA81-004
L102
L103
L101
TP119
Q122 2SA779K
IC119 HA17524P
VR101 1K
IC101 MN74HCU04
IC106 MN74HC32
IC107 TC74 HC125P
IC117 MN74 HC02
IC118 MN74 HC14
IC120 MN74 HC00
IC117 MN74HC02
OPEN
OPEN
IC129 MN74MC138
IC130 MN74MC138
IC118 MN74HC14
CN6112
KSL 2
KSL 3
KSL 4
KSL 5
KSL 6
KSL 7
KSL 8
KSL 9
MA700
TO FLEXIBLE P.C.B
CN6111
RL 0
RL 1
RL 2
RL 3
RL 4
RL 5
RL 6
RL 7
MA700
TO FLEXIBLE P.C.B
JOG SHTL
CN6117
+5V
STILL
SHTL
DIAL 1
DIAL 2
GND
K CPU C.B.A (VEP56061A)
8
9
10
11
12
13
14
15

K CPU C.B.A. (VEP66061A)

ROTALY SW C.B.A. (VEP66064A)


E
D
C
B
A
1
2
3
4
5
6
7
8
MUI5PB280R1
VJB66061
TMPZ84C40AP6
TMPZ84C30AP6
TMPZ84C20AP6
TMPZ84C00AP6
MBM27C256-20
HM6264LP-12
MN74HC564
TC74HC125P
MN74HC02
MN74HC32
MN74HC04
MN74HC161
MN74HC138
MN74HC14
MN74HC00
AN6873N
MC34051P
µPD71055C
HA17524P
TL7705
DSW101
DSW102
VR101
VR102
BZ101
SW401
CN6409
MUI5PB282
VJB66064

K CPU C.B.A.

Transistor

Q101	A-3
Q102	A-3
Q103	A-3
Q104	A-3
Q105	A-3
Q106	A-4
Q107	A-4
Q108	A-4
Q109	A-4
Q110	A-4
Q111	A-4
Q112	A-4
Q113	A-4
Q114	A-4
Q115	A-4
Q116	A-4
Q117	A-4
Q118	A-5
Q119	A-5
Q120	A-6
Q121	A-5
Q122	B-7
Q123	D-8
Q124	C-8
Q125	E-2
Q126	B-3
Q127	B-3
Q128	B-3
Q129	B-3
Q130	B-3
Q131	B-3
Q132	B-4
Q133	B-4
Q134	B-4
Q135	B-4
Q136	B-4

Integrated Circuit

IC101	C-4
IC102	C-4
IC103	D-5
IC104	D-1
IC105	B-1
IC106	C-2
IC107	D-2
IC108	C-2
IC109	D-2
IC110	C-3
IC111	C-6
IC112	D-6
IC113	E-6
IC114	B-3
IC115	B-5
IC116	D-2
IC117	C-2
IC118	B-2
IC119	B-8
IC120	B-5
IC121	D-3
IC122	D-4
IC123	C-5
IC124	E-5
IC125	E-3
IC126	E-4
IC127	C-5
IC128	E-2
IC129	A-6
IC130	B-6
IC131	B-4
IC132	B-3
IC133	B-6
IC134	B-6

Test Point

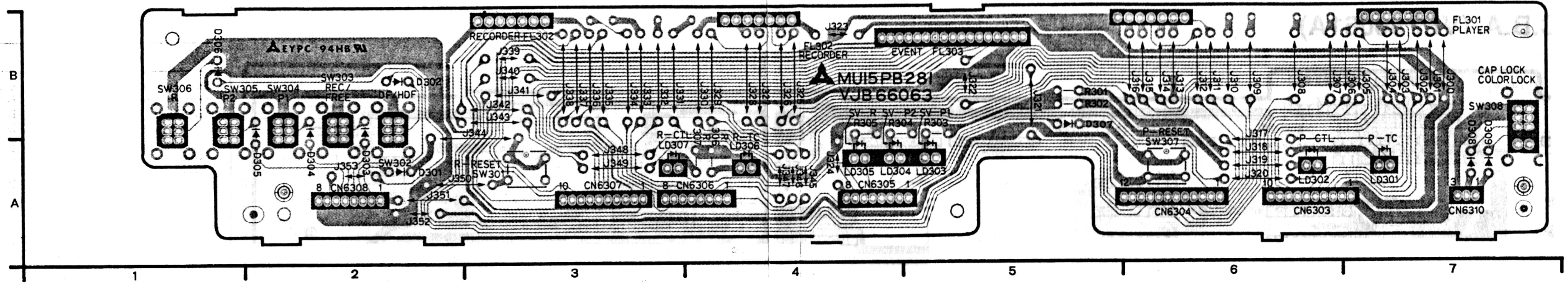
TP101	D-8
TP102	C-1
TP103	C-4
TP104	C-4
TP105	D-1
TP106	D-1
TP107	C-4
TP108	C-2
TP109	A-8
TP110	D-6
TP111	D-6
TP112	D-6
TP113	D-6
TP117	D-7
TP118	C-7
TP119	D-8
TP120	A-5
TP121	C-1
TP122	D-7
TP123	D-7

Adjustment

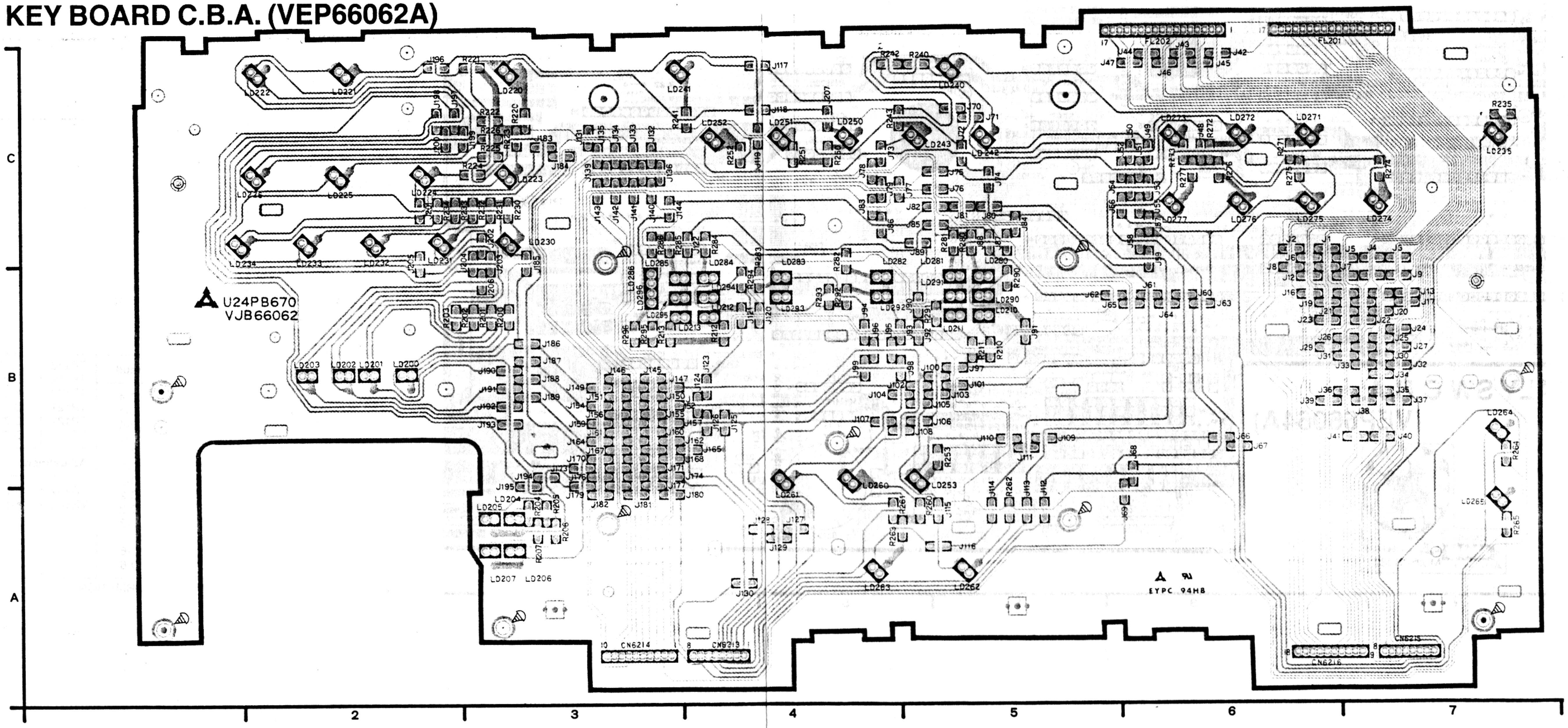
VR101	B-7
VR102	E-1

ADDRESS INFORMATION

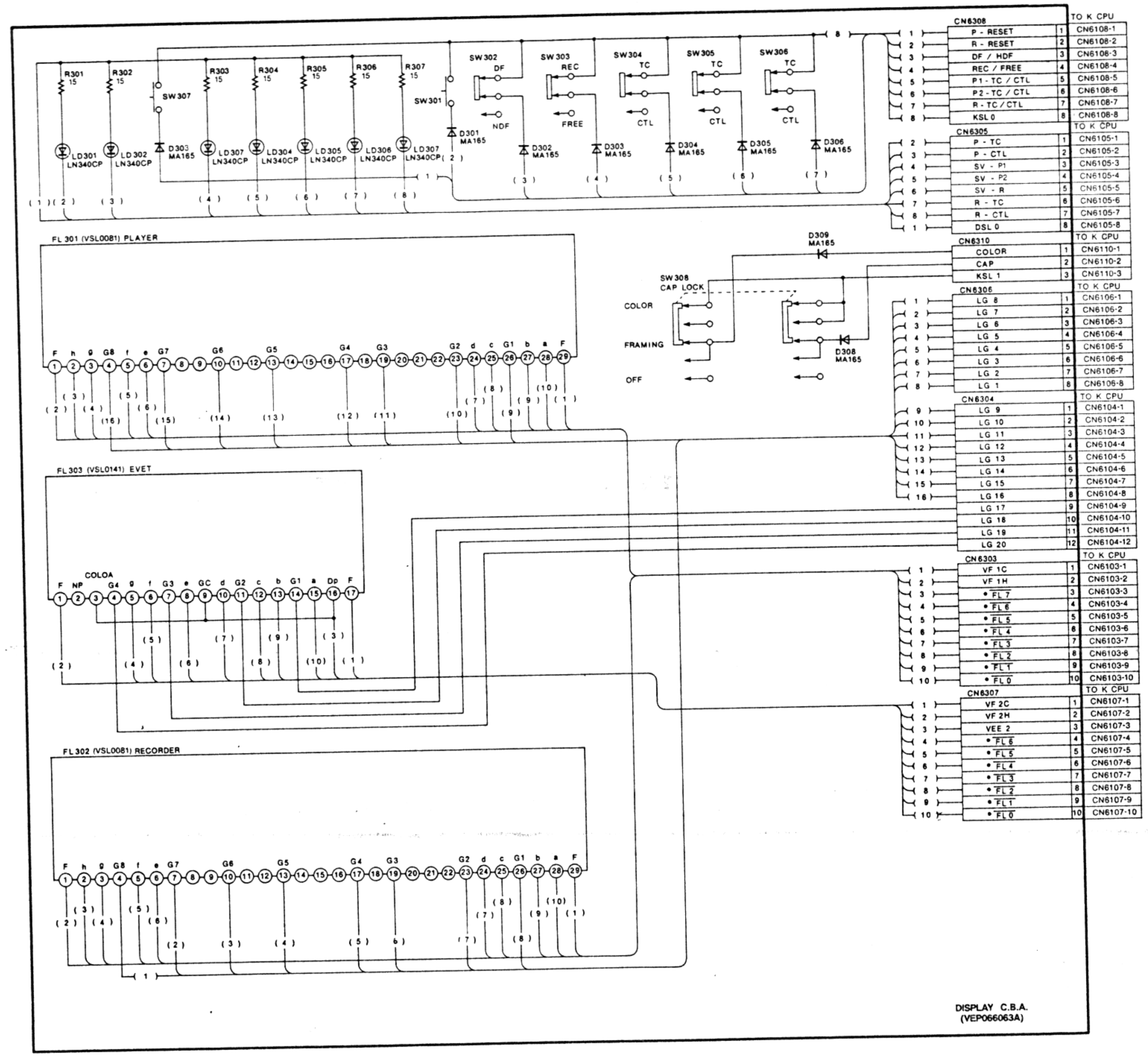
DISPLAY C.B.A. (VEP66063A)


EYPC 94HB
MUI5PB281
VJB66063
FL302 RECORDER
FL303 EVENT
FL301 PLAYER
CAP LOCK
COLOR LOCK
SW306
SW305
SW304
SW303 REC/FREE
DP/HDF
SW302
SW301 R-RESET
SW307 P-RESET
SW308
R-CTL
R-TC
P-CTL
P-TC
SV-R
SV-P2
SV-P1
CN6308
CN6307
CN6306
CN6305
CN6304
CN6303
CN6310
LD307
LD306
LD305
LD304
LD303
LD302
LD301
D301
D302
D307
R301
R302
B
A
1
2
3
4
5
6
7

KEY BOARD C.B.A. (VEP66062A)

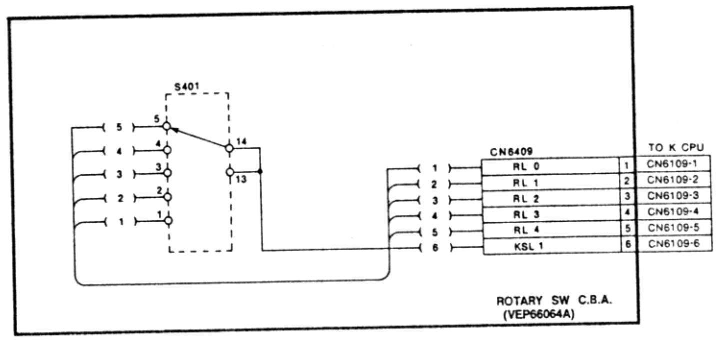

U24PB670
VJB66062
EYPC 94HB
FL202
FL201
CN6214
CN6213
CN6216
CN6215
LD222
LD221
LD220
LD226
LD225
LD224
LD223
LD234
LD233
LD232
LD231
LD230
LD203
LD202
LD201
LD200
LD205
LD204
LD207
LD206
LD241
LD252
LD251
LD250
LD240
LD243
LD242
LD273
LD272
LD271
LD235
LD277
LD276
LD275
LD274
LD261
LD260
LD253
LD263
LD262
LD264
LD265
C
B
A
2
3
4
5
6
7

DISPLAY SCHEMATIC DIAGRAM (VEP66063A)



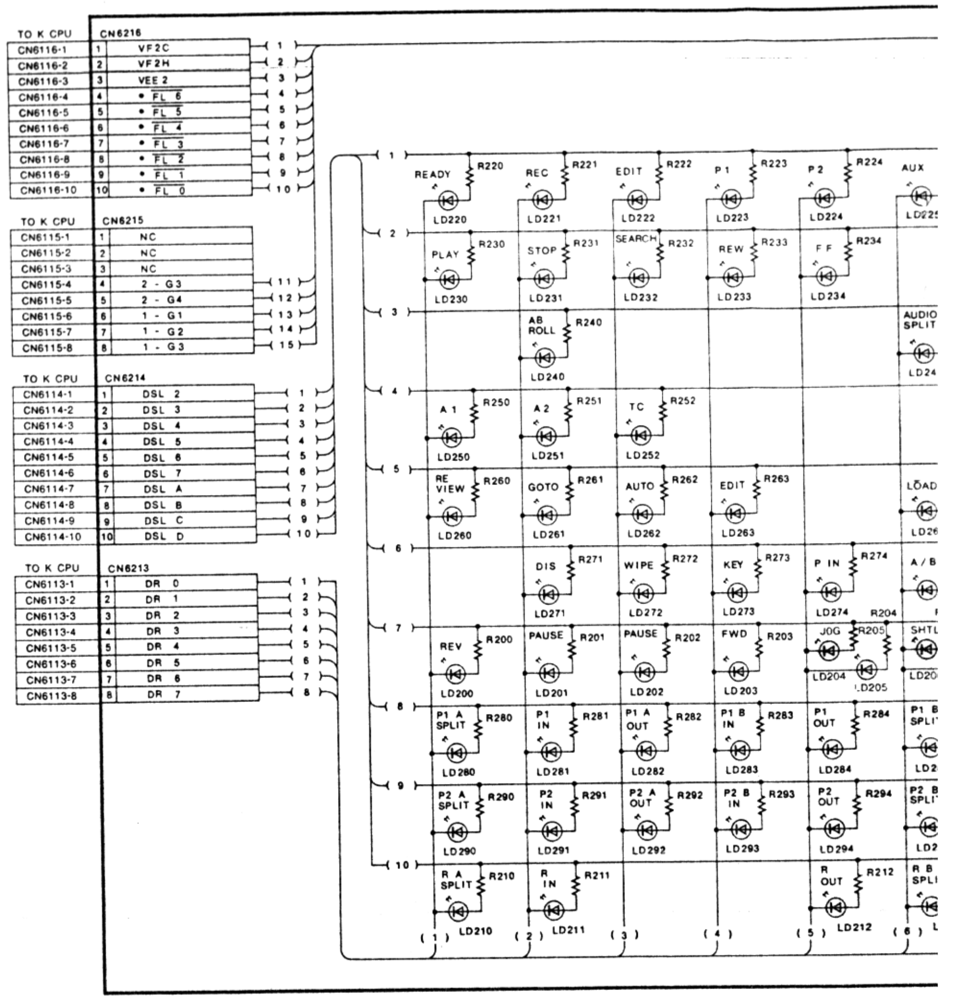
CN6308
P - RESET
R - RESET
DF / HDF
REC / FREE
P1 - TC / CTL
P2 - TC / CTL
R - TC / CTL
KSL 0
TO K CPU
CN6305
CN6310
COLOR
CAP
KSL 1
CN6306
CN6304
CN6303
CN6307
SW302 DF NDF
SW303 REC FREE
SW304 TC CTL
SW305 TC CTL
SW306 TC CTL
SW301
SW307
SW308 CAP LOCK
COLOR
FRAMING
OFF
D309 MA165
D308 MA165
FL 301 (VSL0081) PLAYER
FL 303 (VSL0141) EVET
FL302 (VSL0081) RECORDER
DISPLAY C.B.A. (VEP066063A)

NOTE: DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERING. THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST, AND MAY BE SLIGHTLY DIFFERENT OR AMENDED SINCE THIS DRAWING WAS PREPARED.



S401
CN6409
RL 0
RL 1
RL 2
RL 3
RL 4
KSL 1
TO K CPU
CN6109-1
CN6109-2
CN6109-3
CN6109-4
CN6109-5
CN6109-6
ROTARY SW C.B.A. (VEP66064A)

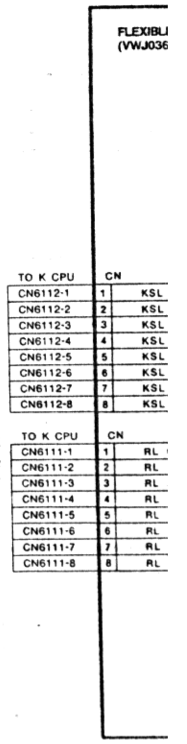
KEY BOARD SCHEMATIC DIAGRAM (VEP66062A



TO K CPU
CN6216
VF2C
VF2H
VEE 2
CN6215
NC
2 - G3
2 - G4
1 - G1
1 - G2
1 - G3
CN6214
DSL 2
DSL 3
DSL 4
DSL 5
DSL 6
DSL 7
DSL A
DSL B
DSL C
DSL D
CN6213
DR 0
DR 1
DR 2
DR 3
DR 4
DR 5
DR 6
DR 7
READY
REC
EDIT
P 1
P 2
AUX
PLAY
STOP
SEARCH
REW
F F
AB ROLL
AUDIO SPLIT
A 1
A 2
TC
RE VIEW
GOTO
AUTO
EDIT
DIS
WIPE
KEY
P IN
A / B
REV
PAUSE
PAUSE
FWD
JOG
SHTL
P1 A SPLIT
P1 IN
P1 A OUT
P1 B IN
P1 OUT
P1 B SPLIT
P2 A SPLIT
P2 IN
P2 A OUT
P2 B IN
P2 OUT
P2 B SPLIT
R A SPLIT
R IN
R OUT
R B SPLIT

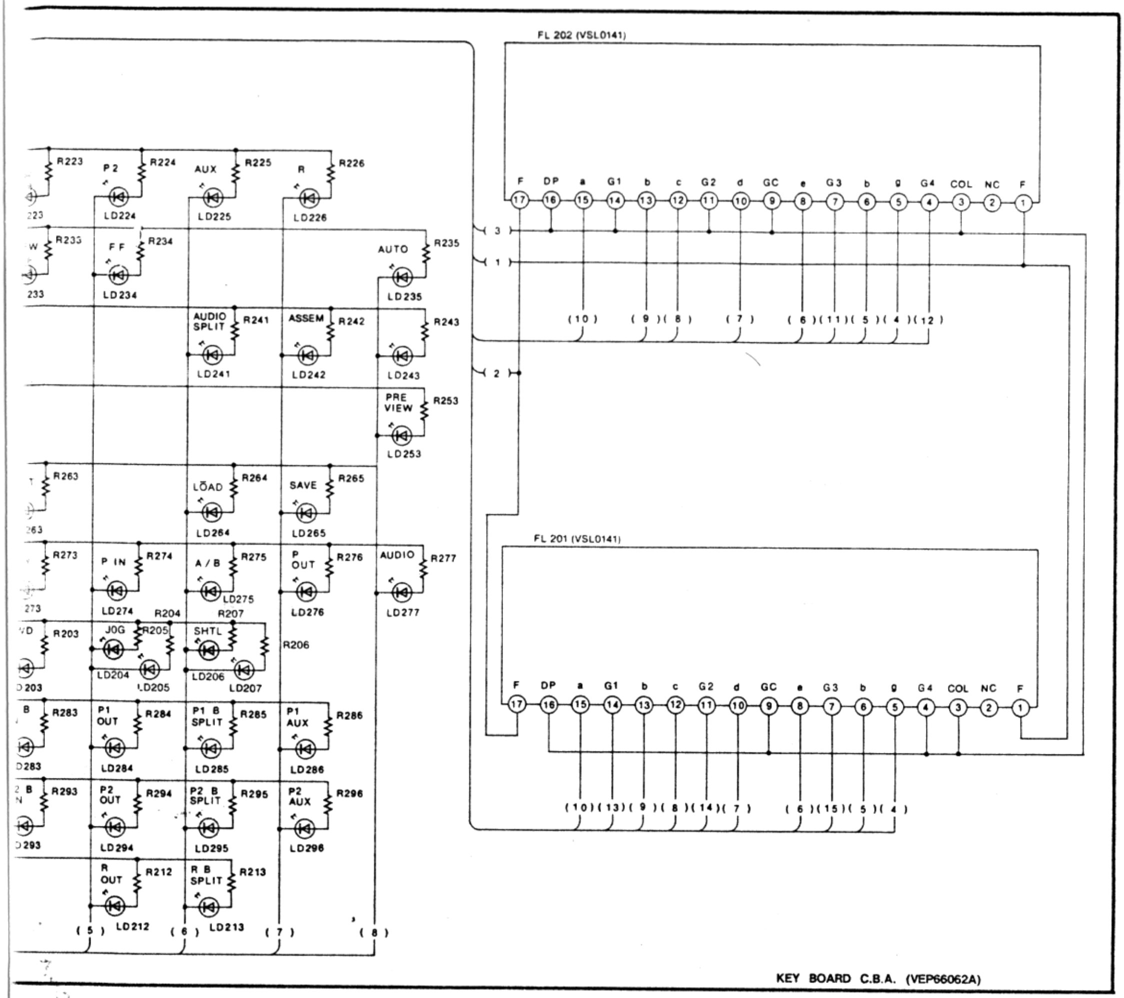
NOTE: DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERING. THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST, AND MAY BE SLIGHTLY DIFFERENT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

★パーツの注文については、パーツリストを参照してください。

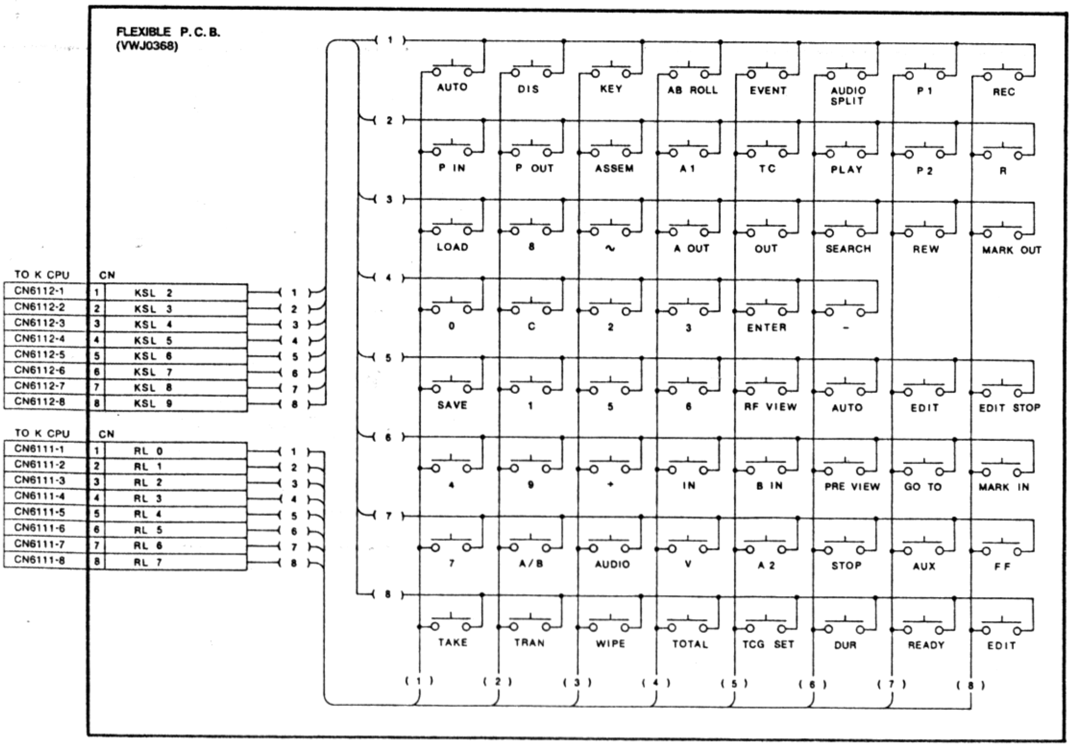


FLEXIBL
(VWJ036
TO K CPU
CN
CN6112-1
KSL
CN6111-1
RL

EP66062A)


FL 202 (VSL0141)
F DP a G1 b c G2 d GC e G3 b g G4 COL NC F
17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1
(10) (9)(8) (7) (6)(11)(5)(4)(12)
FL 201 (VSL0141)
(10)(13)(9)(8)(14)(7) (6)(15)(5)(4)
R223 P2 R224 AUX R225 R R226
LD224 LD225 LD226
R233 FF R234 AUTO R235
LD234 LD235
AUDIO SPLIT R241 ASSEM R242 R243
LD241 LD242 LD243
PRE VIEW R253
LD253
R263 LOAD R264 SAVE R265
LD264 LD265
R273 P IN R274 A/B R275 P OUT R276 AUDIO R277
LD274 LD275 LD276 LD277
R203 JOG R204 R205 SHTL R207 R206
LD204 LD205 LD206 LD207
R283 P1 OUT R284 P1 B SPLIT R285 P1 AUX R286
LD284 LD285 LD286
R293 P2 OUT R294 P2 B SPLIT R295 P2 AUX R296
LD294 LD295 LD296
R OUT R212 R B SPLIT R213
LD212 LD213
(5) (6) (7) (8)
(3) (1) (2)

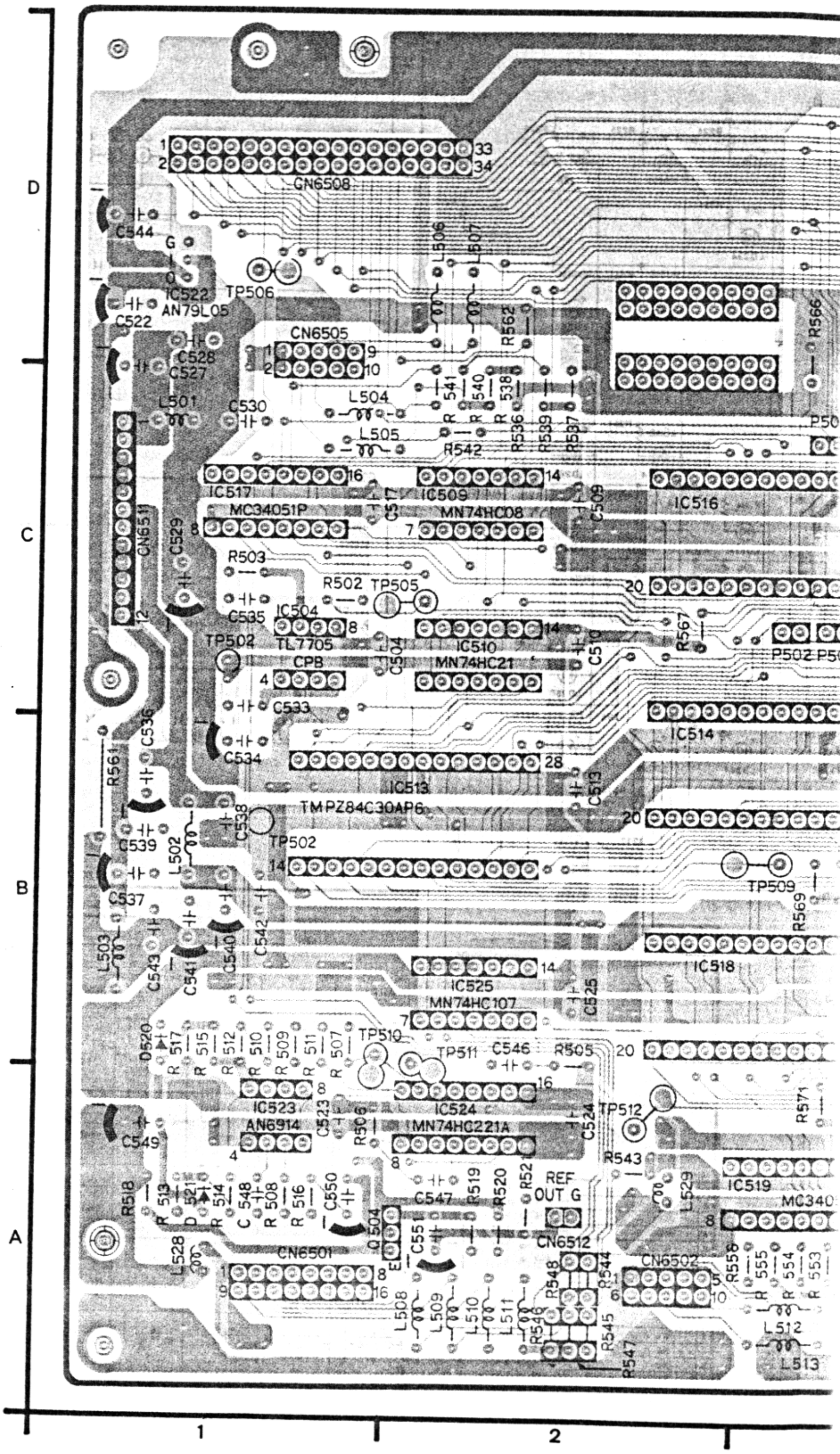
KEY BOARD C.B.A. (VEP66062A)

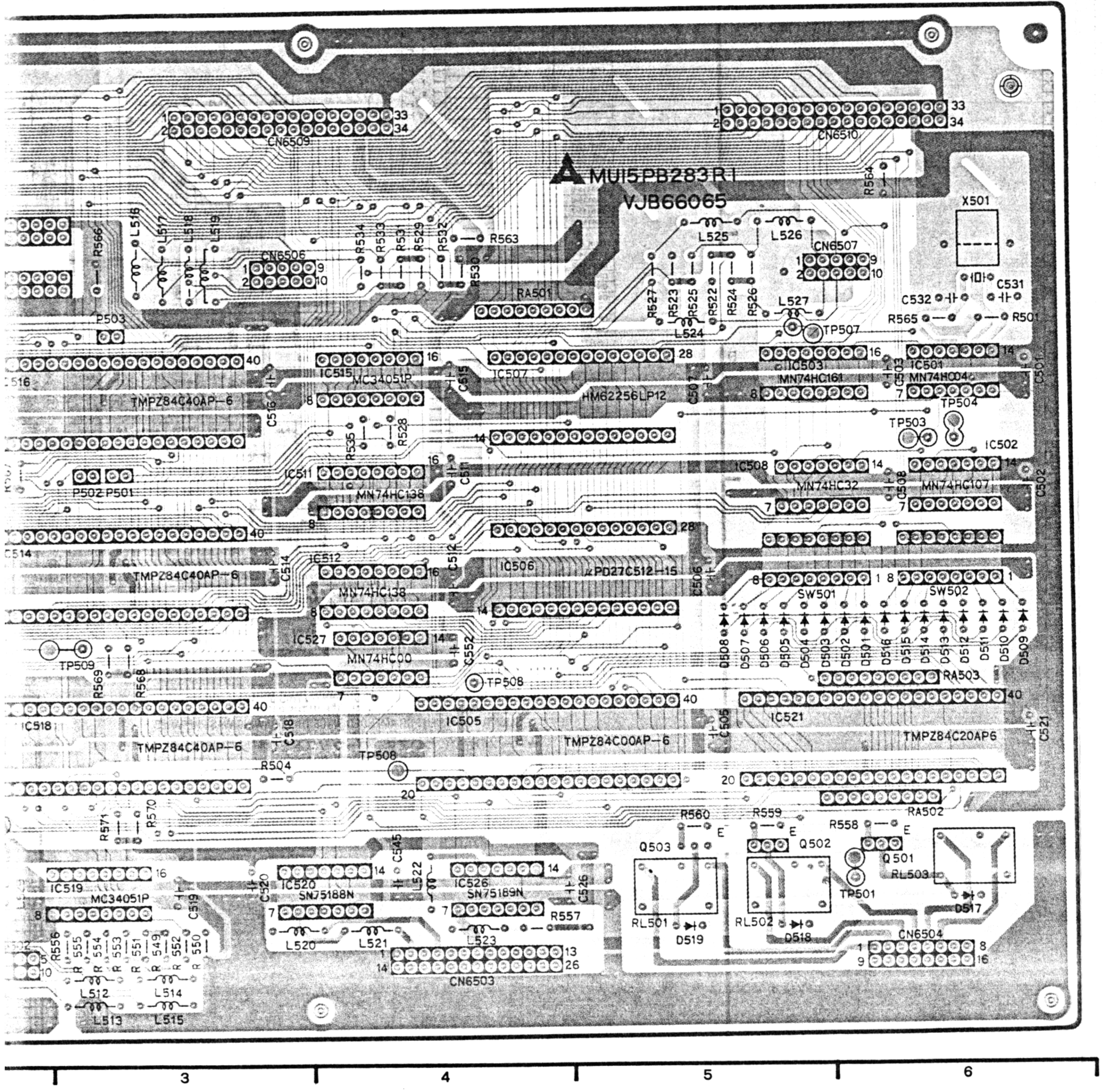

FLEXIBLE P.C.B.
(VWJ0368)
TO K CPU CN
CN6112-1 1 KSL 2
CN6112-2 2 KSL 3
CN6112-3 3 KSL 4
CN6112-4 4 KSL 5
CN6112-5 5 KSL 6
CN6112-6 6 KSL 7
CN6112-7 7 KSL 8
CN6112-8 8 KSL 9
TO K CPU CN
CN6111-1 1 RL 0
CN6111-2 2 RL 1
CN6111-3 3 RL 2
CN6111-4 4 RL 3
CN6111-5 5 RL 4
CN6111-6 6 RL 5
CN6111-7 7 RL 6
CN6111-8 8 RL 7
1 AUTO DIS KEY AB ROLL EVENT AUDIO SPLIT P1 REC
2 P IN P OUT ASSEM A1 TC PLAY P2 R
3 LOAD 8 ~ A OUT OUT SEARCH REW MARK OUT
4 0 C 2 3 ENTER -
5 SAVE 1 5 6 RF VIEW AUTO EDIT EDIT STOP
6 4 9 + IN B IN PRE VIEW GO TO MARK IN
7 7 A/B AUDIO V A2 STOP AUX FF
8 TAKE TRAN WIPE TOTAL TCG SET DUR READY EDIT
(1) (2) (3) (4) (5) (6) (7) (8)

3 4 5 6

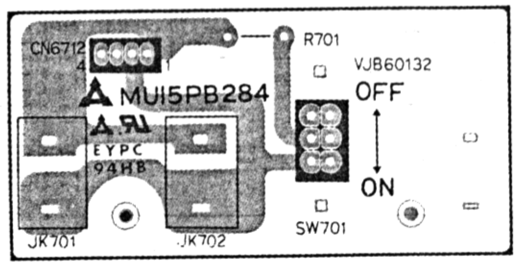
M CPU C.B.A. (VEP66065B)

M CPU C.B.A.	
Transistor	
Q501	A-6
Q502	A-5
Q503	A-5
Integrated Circuit	
IC501	C-6
IC502	C-6
IC503	C-5
IC504	C-1
IC505	B-4
IC506	B-5
IC507	C-5
IC508	C-6
IC509	C-2
IC510	C-2
IC511	C-4
IC512	B-4
IC513	B-2
IC514	B-3
IC515	C-4
IC516	C-3
IC517	C-1
IC518	B-3
IC519	A-3
IC520	A-4
IC521	B-6
IC522	D-1
IC523	A-1
IC524	A-2
IC525	B-2
IC526	A-4
IC527	B-4
Test Point	
TP501	A-6
TP502	C-1
TP503	C-6
TP504	C-6
TP505	C-2
TP506	D-1
TP507	C-5
TP508	B-4
TP509	B-3
TP510	B-1
TP511	A-2
TP512	A-2

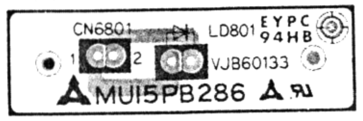

D
C
B
A
1
2
CN6508
C544
IC522
AN79L05
TP506
C522
CN6505
C528
C527
L501
C530
L504
L505
R542
L506
L507
R562
R566
IC517
MC34051P
IC509
MN74HC08
C509
IC516
CN651
C529
R503
R502
TP505
C535
IC504
TL7705
IC510
MN74HC21
R567
C510
TP502
CPB
C533
C534
IC514
C536
R561
IC513
TMPZ84C30AP6
C513
C538
C539
L502
TP509
R569
C537
IC518
L503
C543
C541
C540
C542
IC525
MN74HC107
C525
D520
TP510
TP511
C546
R505
IC523
AN6914
IC524
MN74HC221A
TP512
R571
C549
C523
R506
C524
R543
IC519
MC340
R518
C548
C550
Q504
C55
C547
R519
R520
REF OUT G
CN6512
R529
CN6501
L528
L508
L509
L510
L511
R546
R548
R544
R545
R547
CN6502
R558
L512
L513


CN6509
CN6510
MUI5PB283R1
VJB66065
X501
L525
L526
CN6507
CN6506
R563
RA501
L527
C532
C531
R565
R501
TP507
L524
IC515
MC34051P
IC507
HM62256LP12
IC503
MN74HC161
IC501
MN74HC04
TP504
TMPZ84C40AP-6
TP503
IC502
IC511
MN74HC138
IC508
MN74HC32
MN74HC107
P502
P501
IC512
MN74HC138
IC506
μPD27C512-15
SW501
SW502
IC527
MN74HC00
TP509
TP508
RA503
IC505
IC521
TMPZ84C00AP-6
TMPZ84C20AP6
IC518
TMPZ84C40AP-6
R504
TP506
RA502
R560
R559
R558
Q503
Q502
Q501
RL503
IC519
MC34051P
IC520
SN75188N
IC526
SN75189N
R557
RL501
RL502
TP501
D517
D519
D518
CN6504
CN6503
L520
L521
L523
L512
L513
L514
L515
3
4
5
6

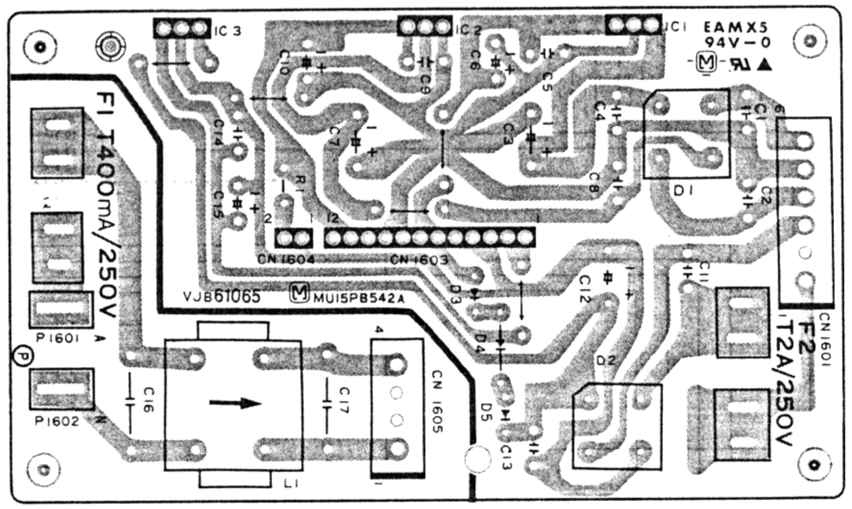
BNC C.B.A. (VEP60132A)


CN6712
R701
VJB60132
MUI5PB284
EYPC 94HB
OFF
ON
JK701
JK702
SW701

POWER LED C.B.A. (VEP60133A)


CN6801
LD801
EYPC 94HB
VJB60133
MUI5PB286

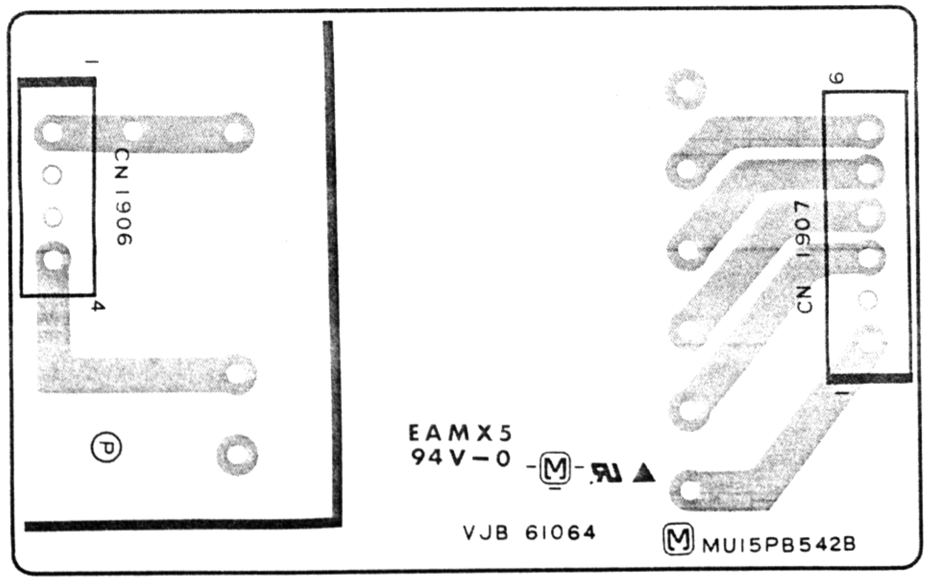
POWER C.B.A. (VEP61065A)


IC 3
IC 2
IC 1
EAMX5 94V-0
F1 T400mA/250V
F2 T2A/250V
CN1604
CN1603
CN1601
CN1605
VJB61065
MUI5PB542A
P1601
P1602
D1
D2
L1
C16
C17

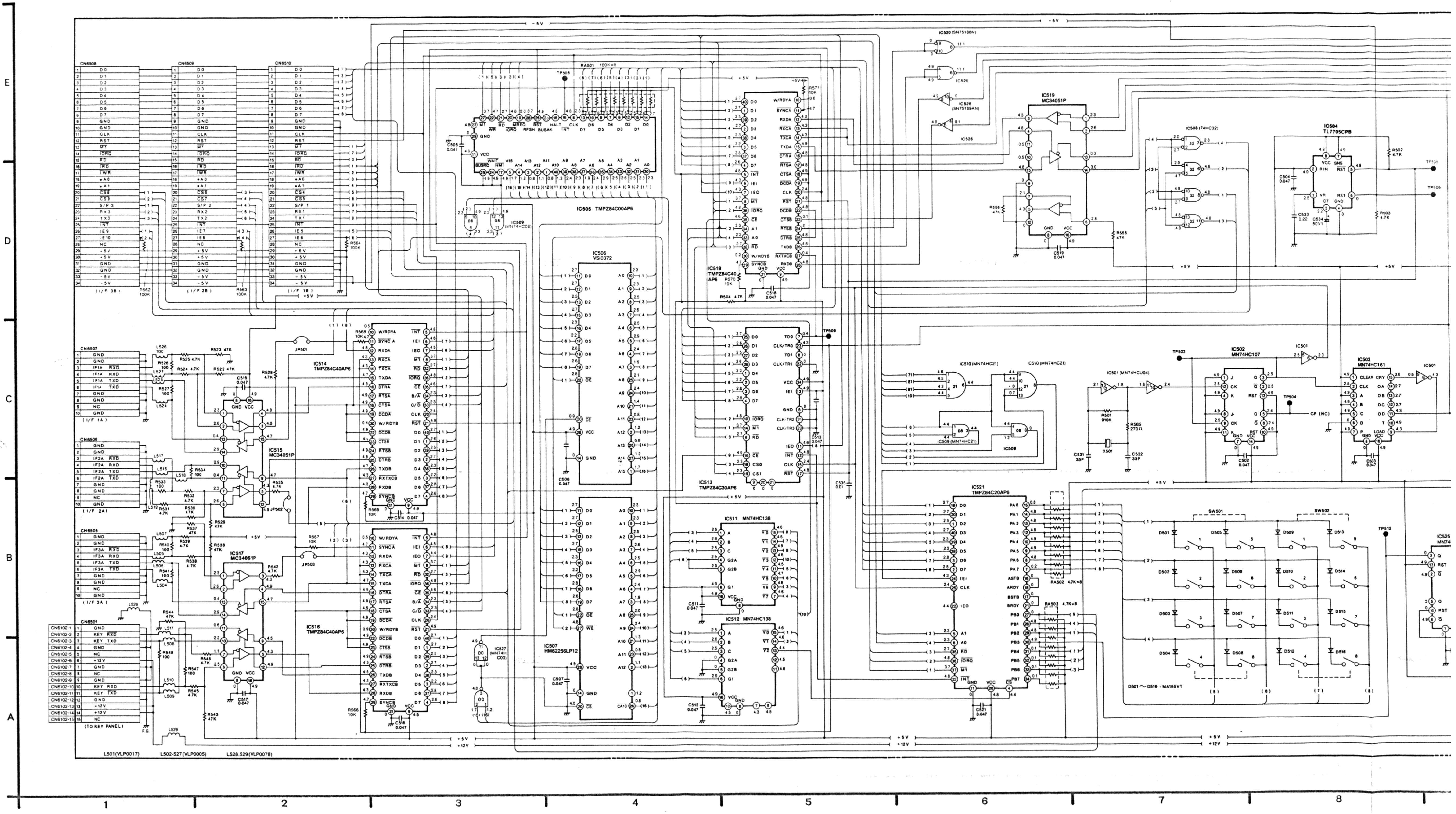
POWER BOARD. C.B.A.	
Integrated Circuit	
IC1	C-3
IC2	C-2
IC3	C-1

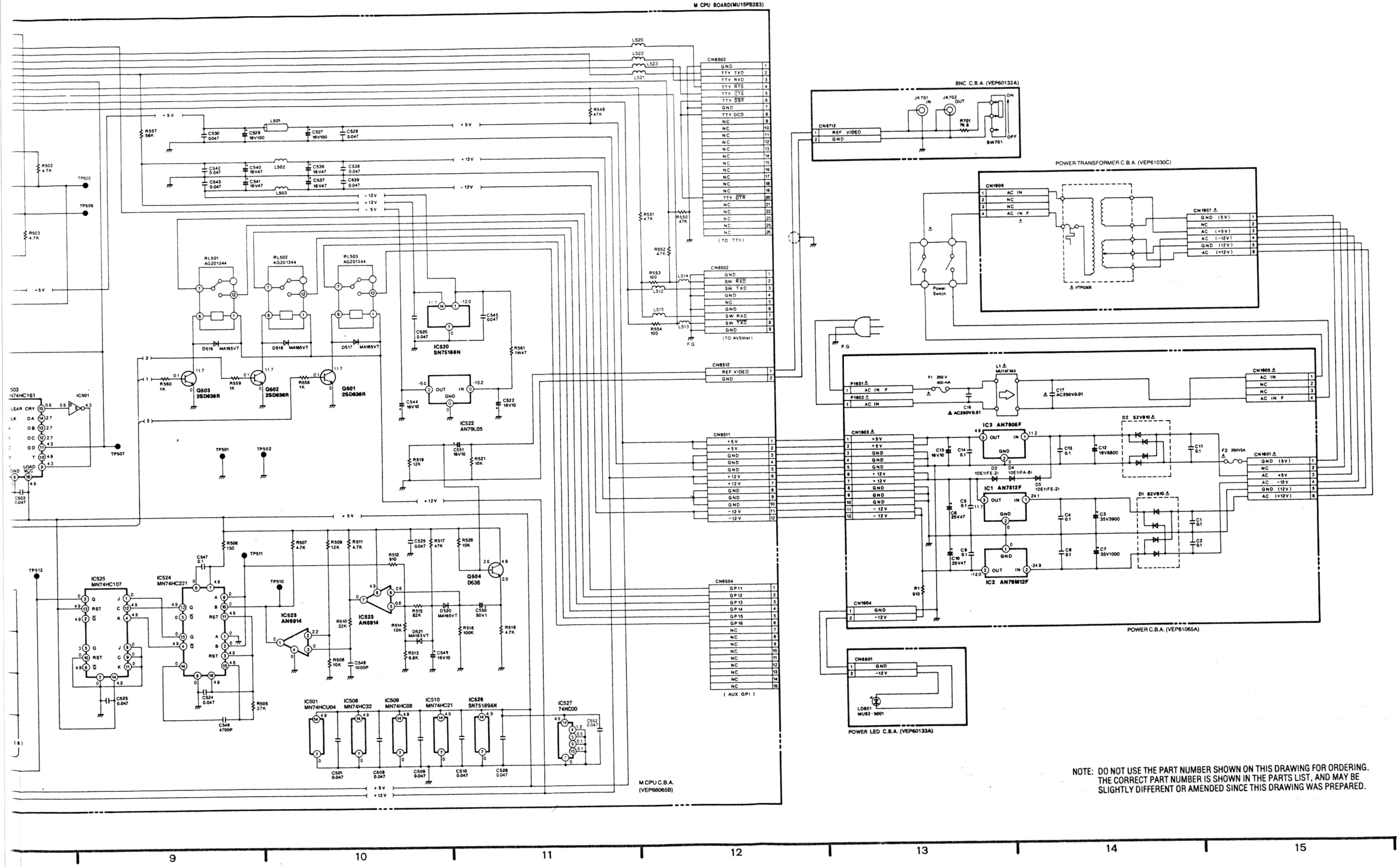
ADDRESS INFORMATION

POWER TRANSFORMER C.B.A. (VEP61064A)


CN 1906
CN 1907
EAMX5 94V-0
VJB 61064
MUI5PB542B

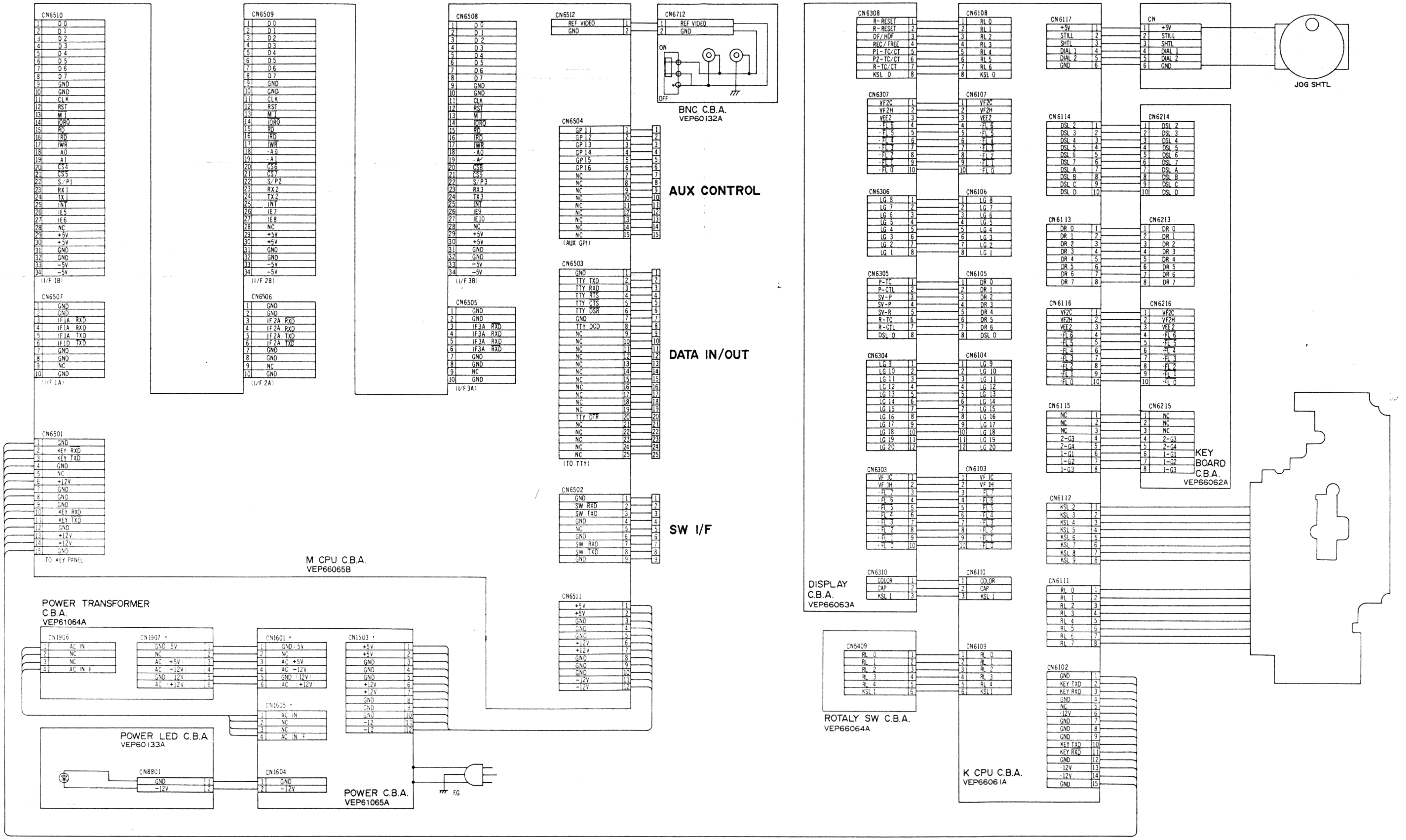
M CPU SHEMATIC DIAGRAM (VEP66065B)


E
D
C
B
A
1
2
3
4
5
6
7
8
CN6508
CN6509
CN6510
(I/F 3B)
(I/F 2B)
(I/F 1B)
CN6507
(I/F 1A)
CN6506
(I/F 2A)
CN6505
(I/F 3A)
CN6501
(TO KEY PANEL)
IC505 TMPZ84C00AP6
RA501 100K×8
TP508
IC509 (MN74HC08)
IC506 VSI0372
IC507 HM62256LP12
IC514 TMPZ84C40AP6
IC515 MC34051P
IC516 TMPZ84C40AP6
IC517 MC34051P
IC518 TMPZ84C40AP6
IC513 TMPZ84C30AP6
IC511 MN74HC138
IC512 MN74HC138
IC527 (MN74HC00)
IC520 (SN75188N)
IC526 (SN75189AN)
IC519 MC34051P
IC508 (74HC32)
IC504 TL7705CPB
IC510 (MN74HC21)
IC501 (MN74HCU04)
IC502 MN74HC107
IC503 MN74HC161
IC521 TMPZ84C20AP6
RA502 4.7K×8
RA503 4.7K×8
SW501
SW502
D501 ～ D516 : MA165VT
X501
TP503
TP504
TP505
TP506
TP509
TP512
IC525
JP501
JP502
JP503
+5V
-5V
+12V
L501(VLP0017)
L502-527(VLP0005)
L528,529(VLP0078)


M CPU BOARD(MU15PB283)
CN6503
GND
TTY TXD
TTY RXD
TTY RTS
TTY CTS
TTY DSR
GND
TTY DCD
NC
TTY DTR
(TO TTY)
CN6502
GND
SW RXD
SW TXD
NC
(TO AVSWer)
CN6512
REF VIDEO
CN6511
+5V
+12V
-12V
CN6504
GP11
GP12
GP13
GP14
GP15
GP16
(AUX GPI)
M CPU C.B.A. (VEP66065B)
RL501 AG201344
RL502 AG201344
RL503 AG201344
D519 MA165VT
D518 MA165VT
D517 MA165VT
Q503 2SD636R
Q502 2SD636R
Q501 2SD636R
IC520 SN75188N
IC522 AN79L05
IC525 MN74HC107
IC524 MN74HC221
IC523 AN6914
Q504 D636
IC501 MN74HCU04
IC508 MN74HC32
IC509 MN74HC08
IC510 MN74HC21
IC526 SN75189AN
IC527 74HC00
IC501
N74HC161
TP501
TP502
TP505
TP506
TP507
TP510
TP511
TP512
+5V
+12V
-12V
-5V
BNC C.B.A. (VEP60132A)
CN6712
REF VIDEO
GND
JK701 IN
JK702 OUT
R701
SW701
ON
OFF
POWER TRANSFORMER C.B.A. (VEP61030C)
CN1906
AC IN
NC
AC IN F
CN1907
GND (5V)
AC (+5V)
AC (-12V)
GND (12V)
AC (+12V)
VTP0305
Power Switch
F.G
POWER C.B.A. (VEP61065A)
P1601
P1602
AC IN F
AC IN
F1 250V 400mA
C16 AC250V0.01
C17 AC250V0.01
CN1605
CN1603
IC3 AN7805F
IC1 AN7812F
IC2 AN79M12F
D2 S2VB10
D1 S2VB10
F2 250V2A
CN1601
AC +5V
AC -12V
CN1604
R1 510
POWER LED C.B.A. (VEP60133A)
CN6801
LD801
9
10
11
12
13
14
15

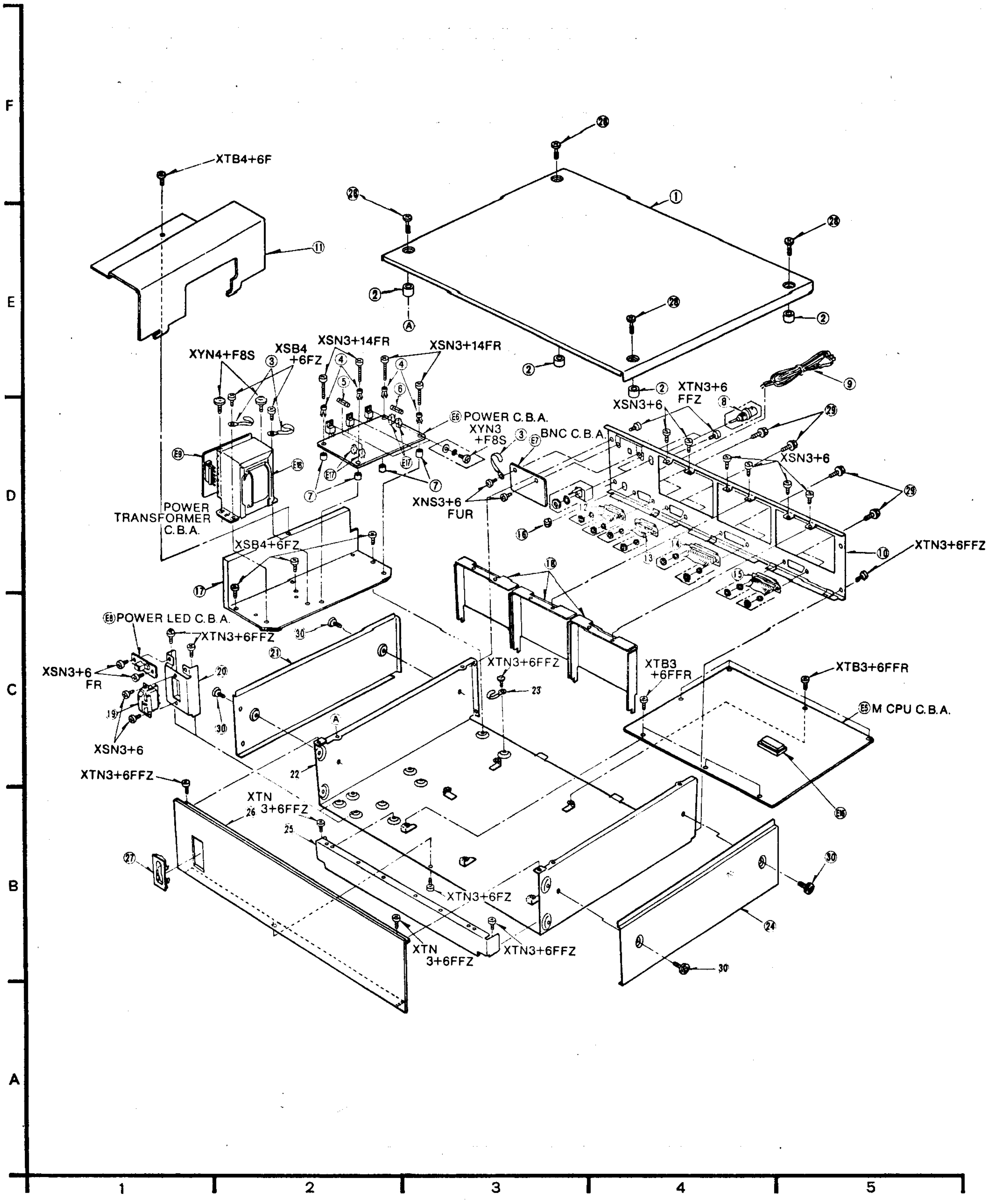
NOTE: DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERING. THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST, AND MAY BE SLIGHTLY DIFFERENT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

INTERCONNECTION SCHEMATIC DIAGRAM

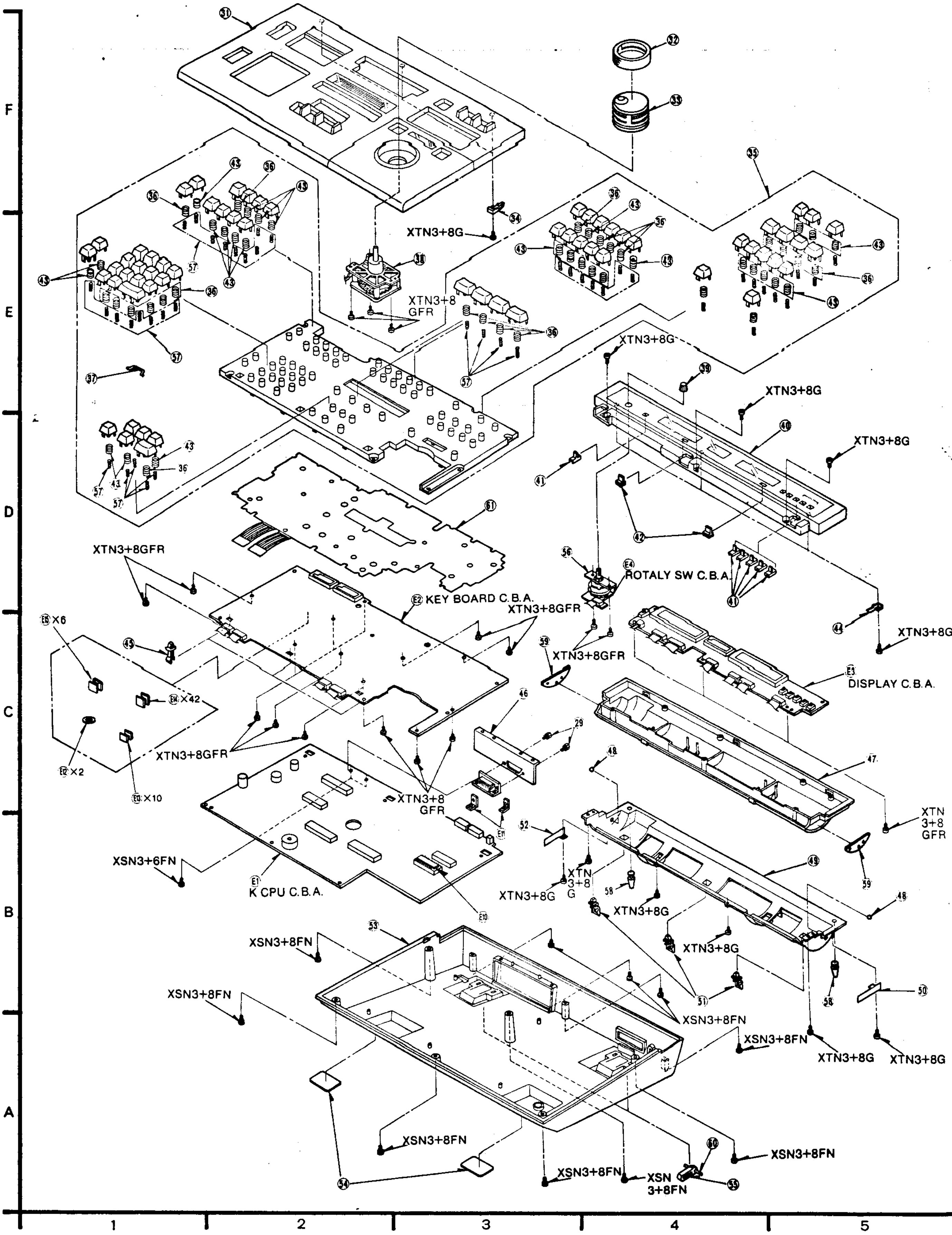

CN6510
(I/F 1B)
CN6509
(I/F 2B)
CN6508
(I/F 3B)
CN6507
(I/F 1A)
CN6506
(I/F 2A)
CN6505
(I/F 3A)
CN6501
TO KEY PANEL
M CPU C.B.A.
VEP66065B
CN6512
REF VIDEO
GND
CN6712
ON
OFF
BNC C.B.A.
VEP60132A
CN6504
(AUX GPI)
AUX CONTROL
CN6503
(TO TTY)
DATA IN/OUT
CN6502
SW I/F
CN6511
POWER TRANSFORMER
C.B.A.
VEP61064A
CN1906
CN1907
CN1601
CN1503
CN1605
POWER LED C.B.A.
VEP60133A
CN8801
CN1604
POWER C.B.A.
VEP61065A
F.G
CN6308
CN6307
CN6306
CN6305
CN6304
CN6303
CN6310
DISPLAY
C.B.A.
VEP66063A
CN5409
ROTALY SW C.B.A.
VEP66064A
CN6108
CN6107
CN6106
CN6105
CN6104
CN6103
CN6110
CN6109
K CPU C.B.A.
VEP66061A
CN6117
CN6114
CN6113
CN6116
CN6115
CN6112
CN6111
CN6102
CN
CN6214
CN6213
CN6216
CN6215
KEY
BOARD
C.B.A.
VEP66062A
JOG SHTL

EXPLODED VIEWS

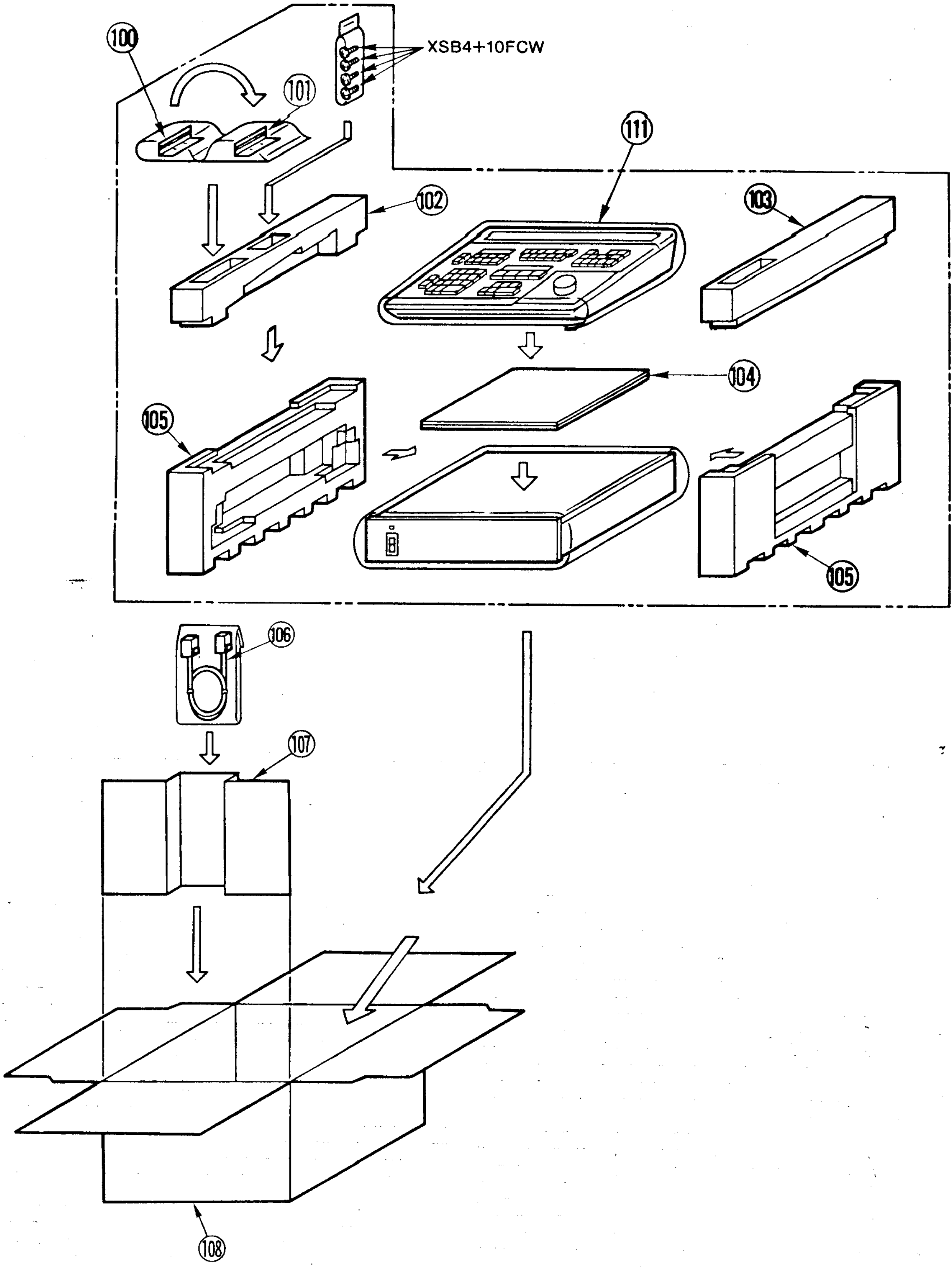
❶ Casing Parts Section (I/F UNIT)


F
E
D
C
B
A
1
2
3
4
5
XTB4+6F
⑪
㉘
①
②
Ⓐ
XYN4+F8S
XSB4 +6FZ
③
XSN3+14FR
④
⑤
⑥
XSN3+14FR
E6 POWER C.B.A.
XYN3 +F8S
③
E7 BNC C.B.A.
XTN3+6 FFZ
XSN3+6
⑧
⑨
㉙
XSN3+6
E9
E18
POWER TRANSFORMER C.B.A.
E17
⑦
XNS3+6 FUR
⑯
⑫
⑬
⑭
⑮
⑩
XTN3+6FFZ
XSB4+6FZ
⑰
⑱
E8 POWER LED C.B.A.
XTN3+6FFZ
㉚
XSN3+6 FR
⑲
⑳
㉑
XSN3+6
XTN3+6FFZ
23
XTB3 +6FFR
XTB3+6FFR
E5 M CPU C.B.A.
E16
22
XTN3+6FFZ
XTN 3+6FFZ
26
25
㉗
XTN3+6FZ
㉔
XTN 3+6FFZ
XTN3+6FFZ
30

❷ Casing Parts Section (Control Panel Section)


㉛
㉜
㉝
㉟
㊱
㊸
㉞
XTN3+8G
㊳
XTN3+8
GFR
㊲
㊷
XTN3+8G
㊴
㊵
㊶
㊹
㊺
㊻
㉙
㊽
㊼
(52)
(53)
(54)
(55)
(56)
(57)
(58)
(59)
(60)
(61)
(51)
(50)
㊾
Ⓔ4 ROTALY SW C.B.A.
Ⓔ2 KEY BOARD C.B.A.
Ⓔ3 DISPLAY C.B.A.
Ⓔ1 K CPU C.B.A.
Ⓔ10
Ⓔ11
Ⓔ5 ×6
Ⓔ4 ×42
Ⓔ2 ×2
Ⓔ3 ×10
XTN3+8GFR
XSN3+6FN
XSN3+8FN
XTN
3+8
G
XSN
3+8FN
XTN
3+8
GFR
F
E
D
C
B
A
1
2
3
4
5

❸ Packing Parts Section


100
101
XSB4+10FCW
111
102
103
104
105
105
106
107
108

REPLACEMENT PARTS LIST

Notes:

1. •Be sure to make your orders of replacement parts according to this list.
   •"<R>" in Remark column indicates recommended parts.
2. IMPORTANT SAFETY NOTICE
   Components identified by "⚠" have special characteristics important for safety. When replacing any of these components, use only the original ones.
   Meaning of symbol ⚠ on this parts list is exactly the same as symbol ⚠ on Schematic and Circuit Board Diagrams.
3. Unless otherwise specified;
   All resistors are in OHMS (Ω), K=1,000Ω, M=1,000 kΩ.
4. ITEM NUMBERS WITH CAPITAL LETTER E
   Item numbers with capital letter E (Example: E1, E2, ...) in Ref. No. column mean that the parts are listed with the E item numbers in the exploded views.
5. The main assembled parts are shown below C.B.A. marked with "■".
6. When ordering parts, use part No. only from Part No. column.
7. Printed circuit board assembly with mark (NLA) is no longer available after discontinuation of the product.

MECHANICAL REPLACEMENT PARTS LIST

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
1(1)		VKU1495	TOP PANEL	1	
2(1)		VGM0404	STOPPER	4	
3(1)		VJR4	CLAMP	3	
4(1)		VMX0824	NYLON RIVET	4	
5(1)		XBA2C04TB0	FUSE 250V 0.4A	1	<!><R>
6(1)		XBA2C20TB0	FUSE 250V 2A	1	<!><R>
7(1)		VMX1340	NYLON RIVET	4	
8(1)		VJS2561	REF VIDEO TERMINAL	1	
9(1)		VJA0169	POWER CORD	1	<!><R>AG-A800-E/EP
9(1)		VJA0087	POWER CORD	1	<!><R>AG-A800-A
9(1)		VJA0074	POWER CORD	1	<!><R>AG-A800-B
10(1)		VGH2272	REAR PANEL	1	
11(1)		VMP2566	TRANSFORMER COVER	1	
12(1)		VEC0514	9-PIN CONNECTOR	1	
13(1)		VEC0512	15-PIN CONNECTOR	1	
14(1)		VEC0513	25-PIN CONNECTOR	1	
15(1)		VEC0512	15-PIN CONNECTOR	1	
16(1)		VDB0293	BUSH	1	
17(1)		VSC3035	HEAT SINK	1	
18(1)		VGH1726	REAR PANEL ORNAMENT	3	
19(1)		VSW0031	POWER SWITCH	1	<!><R>
20(1)		VMP2564	POWER SWITCH PANEL	1	
21(1)		VKM1496	SIDE PANEL (LEFT)	1	
22(1)		VKU0328	CHASSIS	1	
23(1)		VJR3	CLAMP	1	
24(1)		VKM1497	SIDE PANEL (RIGHT)	1	
25(1)		VMP1758	FRAME	1	
26(1)		VGM0431	FRONT PANEL	1	
27(1)		VGQ1263	SWITCH PANEL ORNAMENT	1	
28(1)		VHD0222	SCREW	4	
29(1,2)		VMS2724	SCREW	10	
30(1)		VHD0404	SCREW	4	
31(2)		VYK3051	TOP PANEL	1	<R>
32(2)		VMG0409	SEARCH DIAL RUBBER CAP	1	
33(2)		VGU4339	SEARCH DIAL	1	<R>
34(2)		VMS3809	GUIDE RAIL	3	
35(2)		VXU0911	KEY BOARD UNIT	1	<R>
36(2)		VMB2009	SPRING (LARGE)	32	
37(2)		VML2310	ARM	1	FOR ENTER KEY
38(2)		VSP0185	ROTARY SWITCH	1	
39(2)		VGU4338	PREROLL TIME SWICH KNOB	1	<R>
40(2)		VYK2598	COUNTER/DISPLAY COVER	1	<R>
41(2)		VGU4305	SWITCH KNOB	6	<R>
42(2)		VGU4304	RESET BUTTON	2	<R>
43(2)		VMB2010	SPRING(SMALL)	30	
44(2)		VMS3808	GUIDE RAIL	3	
45(2)		VJF0658	RIB	3	
46(2)		VMP1747	TERMINAL PANEL	1	
47(2)		VKM1485	COUNTER/DISPLAY UNIT HOLDER	1	
48(2)		VMX0522	BALL	2	
49(2)		VKM1486	CASE COVER	1	
50(2)		VMP1746	BALL HOLDER (LEFT)	1	
51(2)		VJF0659	HOOK	3	
52(2)		VMP1745	BALL HOLDER (RIGHT)	1	
53(2)		VKM1484	BOTTOM CASE	1	<R>
54(2)		VKA0078	RUBBER STAND	2	
55(2)		VGQ1627	STAND	2	
56(2)		VMP1743	ROTALY SW.PLATE	1	
57(2)		VMB2008	SPRING	62	
58(2)		VMG0338	RUBBER	2	
59(2)		VMP1744	ANGLE	2	
60(2)		VMS3984	SHAFT	2	
61(2)		VWJ0368	FLEXIBLE P.C.BOARD	1	<R>
62(1)		XBA1C20NU100	FUSE 125V 2A	2	<!><R>
100(3)		VMP1765	RACK MOUNT ADAPTER (R)	1	
101(3)		VMP1766	RACK MOUNT ADAPTER (L)	1	
102(3)		VPN2301	CUSHION (L)	1	
103(3)		VPN2300	CUSHION (R)	1	
104(3)		VQT3437	OPERATING INSTRUCTIONS	1	<!><R>AG-A800-E
104(3)		VQT3452	OPERATING INSTRUCTIONS	1	<!><R>AG-A800-EP
104(3)		VQT3453	OPERATING INSTRUCTIONS	1	<!><R>AG-A800-B/A
105(3)		VPN2302	CUSHION	2	
106(3)		VJA0511	15P-15P CABLE (5M)	1	
107(3)		VPN2303	PAD	1	
108(3)		VPG4431	PACKING CASE	1	<R>

ELECTRICAL REPLACEMENT PARTS LIST

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
			(KEY BOARD SECTION)		
E1		VEP66061A	K CPU C.B.A.	1	(NLA)<R>
E2		VEP66062A	KEY BOARD C.B.A.	1	(NLA)<R>
E3		VEP66063A	DISPLAY C.B.A.	1	(NLA)<R>
E4		VEP66064A	ROTALY SW C.B.A.	1	(NLA)<R>
			(I/F UNIT SECTION)		
E5		VEP66065A	M CPU C.B.A.	1	(NLA)<R>
E6		VEP61065A	POWER C.B.A.	1	(NLA)<R><!>
E7		VEP60132A	BNC C.B.A.	1	(NLA)<R>
E8		VEP60133A	POWER LED C.B.A.	1	(NLA)<R>
E9		VEP61064A	POWER TRANSFORMER C.B.A.	1	(NLA)<R><!>
	■	VEP66061A	K CPU C.B.A.		
BZ101		VSQ0558	BUZZER	1	<R>
C101-18		ECFF1H473ZF	S.CAPACITOR 50V 0.047U	18	
C119		ECKF1H472KB	C.CAPACITOR 50V 4700P	1	
C120-23		ECFF1H473ZF	S.CAPACITOR 50V 0.047U	4	
C129-32		ECFF1H473ZF	S.CAPACITOR 50V 0.047U	4	
C133		ECCF1H330JCB	C.CAPACITOR 50V 33P	1	
C134,35		ECFF1H473ZF	S.CAPACITOR 50V 0.047U	2	
C136		ECEA1HK010B	E.CAPACITOR 50V 1U	1	
C137		ECEA1HKR47B	E.CAPACITOR 50V 0.47U	1	
C138,39		ECKF1H103ZF	C.CAPACITOR 50V 0.01U	2	
C140		ECFF1H473ZF	S.CAPACITOR 50V 0.047U	1	
C141		ECEA1CSS102U	E.CAPACITOR 16V 1000U	1	
C142		ECFF1H473ZF	S.CAPACITOR 50V 0.047U	1	
C143,44		ECEA1CSS471	E.CAPACITOR 16V 470U	2	
C145		ECFF1H473ZF	S.CAPACITOR 50V 0.047U	1	
C146		ECEA1CK101	E.CAPACITOR 16V 100U	1	
C147		ECFF1H473ZF	S.CAPACITOR 50V 0.047U	1	
C148		ECKF1H102KB	C.CAPACITOR 50V 1000P	1	
C149		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C150		ECEA1ESS101	E.CAPACITOR 25V 100U	1	
C151		ECFF1H473ZF	S.CAPACITOR 50V 0.047U	1	
C152		ECEA1ESS101	E.CAPACITOR 25V 100U	1	
C153		ECFF1H473ZF	S.CAPACITOR 50V 0.047U	1	
C154		ECQM1H182KF	P.CAPACITOR 50V 1800P	1	
C155		ECEA1HKA100	E.CAPACITOR 50V 10U	1	
C156		ECEA1ESS101	E.CAPACITOR 25V 100U	1	
C157		ECFF1H473ZF	S.CAPACITOR 50V 0.047U	1	
C158		ECEA1ESS101	E.CAPACITOR 25V 100U	1	
C159		ECFF1H473ZF	S.CAPACITOR 50V 0.047U	1	
C160		ECQM1H561KF	P.CAPACITOR 50V 560P	1	
C161		ECEA1HKA100	E.CAPACITOR 50V 10U	1	
C162		ECQM1H104KF	P.CAPACITOR 50V 0.1U	1	
C163		ECCF1H330JC	C.CAPACITOR 50V 33P	1	
C164,65		VCK0036104KR	C.CAPACITOR 50V 0.1U	2	
C166		VCK0037224KR	C.CAPACITOR 50V 0.22U	1	
C167,68		ECCR1H101JC	C.CAPACITOR 50V 100P	2	
C169		ECSZ25HS4R7	T.CAPACITOR 25V 4.7P	1	
CN6102		VJP2539	CONNECTOR(MALE) 15P	1	
CN6103		VJP1250	CONNECTOR(MALE) 10P	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
CN6104		VJP1252	CONNECTOR(MALE) 12P	1	
CN6105,06		VJP1248	CONNECTOR(MALE) 8P	2	
CN6107		VJP1250	CONNECTOR(MALE) 10P	1	
CN6108		VJP1248	CONNECTOR(MALE) 8P	1	
CN6109		VJP1246	CONNECTOR(MALE) 6P	1	
CN6110		VJP1243	CONNECTOR(MALE) 3P	1	
CN6111		VJS2559	CONNECTOR(FEMALE) 8P	1	
CN6112		VJS2558	CONNECTOR(FEMALE) 8P	1	
CN6113		VJP1248	CONNECTOR(MALE) 8P	1	
CN6114		VJP1250	CONNECTOR(MALE) 10P	1	
CN6115		VJP1248	CONNECTOR(MALE) 8P	1	
CN6116		VJP1250	CONNECTOR(MALE) 10P	1	
CN6117		VJP1233	CONNECTOR(MALE) 6P	1	
D101-22		MA165	DIODE	22	<R>
D123-30		MA700	DIODE	8	<R>
D131,32		MA166	DIODE	2	<R>
D133		MA4091M	DIODE	1	<R>
D134		MA4360M	DIODE	1	<R>
D135		MA4062M	DIODE	1	<R>
D136		RD24EB1	DIODE	1	<R>
D137		RD39EB3	DIODE	1	<R>
D138		ERA81-004	DIODE	1	<R>
D139-46		MA700	DIODE	8	<R>
IC101		MN74HCU04	IC	1	<R>
IC102		MN74HC107	IC	1	<R>
IC103		MN74HC161	IC	1	<R>
IC104		TL7705CPB	IC	1	<R>
IC105		TMPZ84C00AP6	IC	1	<R>
IC106		MN74HC32	IC	1	<R>
IC107		TC74HC125P	IC	1	<R>
IC108		VSI0607A	IC	1	<R>
IC109		HM6264LP12	IC	1	<R>
IC110		MN74MC138	IC	1	<R>
IC111		TMPZ84C30AP6	IC	1	<R>
IC112		TMPZ84C40AP6	IC	1	<R>
IC113		MC34051P	IC	1	<R>
IC114		TMPZ84C20AP6	IC	1	<R>
IC115		UPD71055C	IC	1	<R>
IC116		MN74HC564	IC	1	<R>
IC117		MN74HC02	IC	1	<R>
IC118		MN74HC14	IC	1	<R>
IC119		HA17524P	IC	1	<R>
IC120		MN74HC00	IC	1	<R>
IC121-23		MN74MC138	IC	3	<R>
IC124-28		AN6873N	IC	5	<R>
IC129-32		MN74MC138	IC	4	<R>
IC133		AN6873N	IC	1	<R>
IC134		MN74MC138	IC	1	<R>
L101		VLQ0090	COIL 30UH	1	
L102		VLQ0091	COIL	1	
L103		VLQ0090	COIL 30UH	1	
L104,05		VLQ0197	COIL	2	
L110-13		VLP0005	COIL	4	
L114,15		VLP0078	COIL	2	
Q101-11		2SB643	TRANSISTOR	11	(R)<R>
Q112-19		2SD636	TRANSISTOR	8	(R)<R>
Q120		2SB641	TRANSISTOR	1	(R)<R>
Q121		2SD636	TRANSISTOR	1	(R)<R>
Q122		2SA779KC	TRANSISTOR	1	<R>
Q123		2SD973A	TRANSISTOR	1	(R)<R>
Q124		2SC1318R	TRANSISTOR	1	<R>
Q125-36		2SB641	TRANSISTOR	12	(R)<R>

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
CN6307		VJP1250	CONNECTOR(MALE) 10P	1	
CN6308		VJP1248	CONNECTOR(MALE) 8P	1	
CN6310		VJP1243	CONNECTOR(MALE) 3P	1	
D301-09		MA165	DIODE	9	<R>
FL301,02		VSL0081	DISPLAY TUBE	2	<R>
FL303		VSL0141	DISPLAY TUBE	1	<R>
R301-07		ERDS2TJ150	C.RESISTOR 1/4W 15	7	
SW301		EVQQJ104K	SWITCH	1	<R>
SW302-06		ESD14532	SWITCH	5	<R>
SW307		EVQQJ104K	SWITCH	1	<R>
SW308		ESD14533	SWITCH	1	<R>
	■	VEP66064A	ROTALY SW C.B.A.		
CN6409		VJP1246	CONNECTOR(MALE) 6P	1	
SW401		VSR0048	SWITCH	1	<R>
	■	VEP66065A	M CPU Ç.B.A.		
C501-21		ECFF1H473ZF	C.CAPACITOR 50V 0.047U	21	
C522		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C523-26		ECFF1H473ZF	C.CAPACITOR 50V 0.047U	4	
C527		ECEA1CK101	E.CAPACITOR 16V 100U	1	
C528		ECFF1H473ZF	C.CAPACITOR 50V 0.047U	1	
C529		ECEA1CK101	E.CAPACITOR 16V 100U	1	
C530		ECFF1H473ZF	C.CAPACITOR 50V 0.047U	1	
C531,32		ECKF1H330JF	C.CAPACITOR 50V 33P	2	
C533		VCK0037224KR	C.CAPACITOR 50V 0.22U	1	
C534		ECEA1HK010	E.CAPACITOR 50V 1U	1	
C535		ECKF1H103ZF	C.CAPACITOR 50V 0.01U	1	
C536,37		ECEA1CK470	E.CAPACITOR 16V 47U	2	
C538,39		ECFF1H473ZF	C.CAPACITOR 50V 0.047U	2	
C540,41		ECEA1CK470	E.CAPACITOR 16V 47U	2	
C542,43		ECFF1H473ZF	C.CAPACITOR 50V 0.047U	2	
C544		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C545		ECFF1H473ZF	C.CAPACITOR 50V 0.047U	1	
C546		ECKF1H472KB	C.CAPACITOR 50V 4700P	1	
C547		ECQM1H104KF	P.CAPACITOR 50V 0.1U	1	
C548		ECKF1H102KB	C.CAPACITOR 50V 1000P	1	
C549		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C550		ECEA1HK010	E.CAPACITOR 50V 1U	1	
C551		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C552		ECFF1H473ZF	C.CAPACITOR 50V 0.047U	1	
CN6501		VJS2540B016	CONNECTOR(FEMALE) 15P	1	
CN6502		VJS2540B010	CONNECTOR(FEMALE) 9P	1	
CN6503		VJS2540B026	CONNECTOR(FEMALE) 25P	1	
CN6504		VJS2540B016	CONNECTOR(FEMALE) 15P	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
CN6505-07		VJS2540A010	CONNECTOR(FEMALE) 10P	3	
CN6508-10		VJS2540A034	CONNECTOR(FEMALE) 34P	3	
CN6511		VJP1147	CONNECTOR(MALE) 12P	1	
CN6512		VJP1229	CONNECTOR(MALE) 2P	1	
D501-21		MA165	DIODE	21	<R>
IC501		MN74HCU04	IC	1	<R>
IC502		MN74HC107	IC	1	<R>
IC503		MN74HC161	IC	1	<R>
IC504		TL7705CPB	IC	1	<R>
IC505		TMPZ84C00AP6	IC	1	<R>
IC506		VSI0562	IC	1	<R>
IC507		HM62256LP12	IC	1	<R>
IC508		MN74HC32	IC	1	<R>
IC509		MN74HC08	IC	1	<R>
IC510		MN74HC21	IC	1	<R>
IC511,12		MN74HC138	IC	2	<R>
IC513		TMPZ84C30AP6	IC	1	<R>
IC514		TMPZ84C40AP6	IC	1	<R>
IC515		MC34051P	IC	1	<R>
IC516		TMPZ84C40AP6	IC	1	<R>
IC517		MC34051P	IC	1	<R>
IC518		TMPZ84C40AP6	IC	1	<R>
IC519		MC34051P	IC	1	<R>
IC520		SN75188N	IC	1	<R>
IC521		TMPZ84C20AP6	IC	1	<R>
IC522		AN79L05	IC	1	<R>
IC523		AN6914	IC	1	<R>
IC524		MN74HC221	IC	1	<R>
IC525		MN74HC107	IC	1	<R>
IC526		SN75189AN	IC	1	<R>
IC527		MN74HC00	IC	1	<R>
L501		VLP0017	COIL	1	
L502-27		VLP0005	COIL	26	
L528,29		VLP0078	COIL	2	
P501		VJP1990	CONNECTOR(MALE)	1	
P501		VJS1990	CONNECTOR(FEMALE)	1	
P502		VJP1990	CONNECTOR(MALE)	1	
P502		VJS1990	CONNECTOR(FEMALE)	1	
P503		VJP1990	CONNECTOR(MALE)	1	
P503		VJS1990	CONNECTOR(FEMALE)	1	
Q501-04		2SD636	TRANSISTOR	4	(R)<R>
R501		ERDS2TJ914	C.RESISTOR 1/4W 910K	1	
R502-04		ERDS2TJ472	C.RESISTOR 1/4W 4.7K	3	
R505		ERDS2TJ273	C.RESISTOR 1/4W 27K	1	
R506		ERDS2TJ154	C.RESISTOR 1/4W 150K	1	
R507		ERDS2TJ472	C.RESISTOR 1/4W 4.7K	1	
R508		ERDS2TJ103	C.RESISTOR 1/4W 10K	1	
R509		ERDS2TJ123	C.RESISTOR 1/4W 12K	1	
R510		ERDS2TJ223	C.RESISTOR 1/4W 22K	1	
R511		ERDS2TJ472	C.RESISTOR 1/4W 4.7K	1	
R512		ERDS2TJ914	C.RESISTOR 1/4W 910K	1	
R513		ERDS2TJ682	C.RESISTOR 1/4W 6.8K	1	
R514		ERDS2TJ103	C.RESISTOR 1/4W 10K	1	
R515		ERDS2TJ823	C.RESISTOR 1/4W 82K	1	
R516		ERDS2TJ104	C.RESISTOR 1/4W 100K	1	
R517		ERDS2TJ473	C.RESISTOR 1/4W 47K	1	
R518		ERDS2TJ472	C.RESISTOR 1/4W 4.7K	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R519		ERDS2TJ123	C.RESISTOR 1/4W 12K	1	
R520,21		ERDS2TJ103	C.RESISTOR 1/4W 10K	2	
R522,23		ERDS2TJ473	C.RESISTOR 1/4W 47K	2	
R524,25		ERDS2TJ472	C.RESISTOR 1/4W 4.7K	2	
R526,27		ERDS2TJ101	C.RESISTOR 1/4W 100	2	
R528		ERDS2TJ472	C.RESISTOR 1/4W 4.7K	1	
R529,30		ERDS2TJ473	C.RESISTOR 1/4W 47K	2	
R531,32		ERDS2TJ472	C.RESISTOR 1/4W 4.7K	2	
R533,34		ERDS2TJ101	C.RESISTOR 1/4W 100	2	
R535		ERDS2TJ472	C.RESISTOR 1/4W 4.7K	1	
R536,37		ERDS2TJ473	C.RESISTOR 1/4W 47K	2	
R538,39		ERDS2TJ472	C.RESISTOR 1/4W 4.7K	2	
R540,41		ERDS2TJ101	C.RESISTOR 1/4W 100	2	
R542		ERDS2TJ472	C.RESISTOR 1/4W 4.7K	1	
R543,44		ERDS2TJ473	C.RESISTOR 1/4W 47K	2	
R545,46		ERDS2TJ472	C.RESISTOR 1/4W 4.7K	2	
R547,48		ERDS2TJ101	C.RESISTOR 1/4W 100	2	
R549,50		ERDS2TJ473	C.RESISTOR 1/4W 47K	2	
R551,52		ERDS2TJ472	C.RESISTOR 1/4W 4.7K	2	
R553,54		ERDS2TJ101	C.RESISTOR 1/4W 100	2	
R555,56		ERDS2TJ473	C.RESISTOR 1/4W 47K	2	
R557		ERDS2TJ563	C.RESISTOR 1/4W 56K	1	
R558-60		ERDS2TJ102	C.RESISTOR 1/4W 1K	3	
R561		ERG1ANJ470	M.RESISTOR 1W 47	1	
R562-64		ERDS2TJ104	C.RESISTOR 1/4W 100K	3	
R565		ERDS2TJ271	C.RESISTOR 1/4W 270	1	
R566-71		ERDS2TJ103	C.RESISTOR 1/4W 10K	6	
RA501		EXBF9E103J	COMBI R-R 10K	1	
RA502,03		EXBF9E472J	COMBI R-R 4.7K	2	
RL501-03		VSY1040	RELAY	3	<R>
SW501,02		VSS025208	SWITCH	2	<R>
X501		VSX0286	CRYSTAL OSCILLATOR	1	<R>
			MISCELLANEOUS		
E16		VJS2336A028	IC SOCKET	1	FOR IC506
	■	VEP61065A	POWER C.B.A.		
C1,2		ECQV1H104JZW	P.CAPACITOR 50V 0.1U	2	
C3		ECEA1VGE332	E.CAPACITOR 35V 3300U	1	
C4,5		ECQV1H104JZW	P.CAPACITOR 50V 0.1U	2	
C6		ECEA1EU470	E.CAPACITOR 25V 47U	1	
C7		ECEA1VU102	E.CAPACITOR 35V 1000U	1	
C8,9		ECQV1H104JZW	P.CAPACITOR 50V 0.1U	2	
C10		ECEA1EU470	E.CAPACITOR 25V 47U	1	
C11		ECQV1H104JZW	P.CAPACITOR 50V 0.1U	1	
C12		ECEA1CGE682	E.CAPACITOR 16V 6800U	1	
C13,14		ECQV1H104JZW	P.CAPACITOR 50V 0.1U	2	
C15		ECEA1CU100	E.CAPACITOR 16V 10U	1	
C16,17		ECQU2A103MN	P.CAAOACITOR 100V 0.01U	2	
CN1601		VJP1709	CONNECTOR (MALE)	1	
CN1603		VJP1147	CONNECTOR (MALE)	1	
CN1604		VJP1229	CONNECTOR (MALE)	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
CN1605		VJP1974	CONNECTOR (MALE)	1	
D1,2		S2VB10	DIODE	2	<R>
D3-5		10E1	DIODE	3	<R>
F1,2		VJS0039	CONNECTOR (FEMALE)	2	
IC1		AN7812F	IC	1	<R>
IC2		AN79M12F	IC	1	<R>
IC3		AN7805F	IC	1	<R>
L1		VTQ0006	COIL	1	
P1601,02		SJT777	CONNECTOR	2	
R1		ERDS2TJ511	C.RESISTOR 1/4W 510	1	
	■	VEP60132A	BNC C.B.A.		
CN6712		VJP1242	CONNECTOR(MALE) 2P	1	
R701		EROS2CKF76R8	M.RESISTOR 1/4W 76.8	1	
SW701		ESD1512201	SWITCH	1	<R>
	■	VEP60133A	POWER LED C.B.A.		
CN6801		VJP1242	CONNECTOR(MALE) 2P	1	
LD801		MU925001	LED	1	<R>
	■	VEP61064A	POWER TRANSFORMER C.B.A.		
CN1906		VJP1974	CONNECTOR(MALE) 4P	1	
CN1907		VJP1709	CONNECTOR(MALE) 6P	1	
E18		VTP0305	TRANSFORMER	1	<!><R>
F3S,F4S		VJS0039	FUSE HOLDER	2	<!><R>